

Figure 1

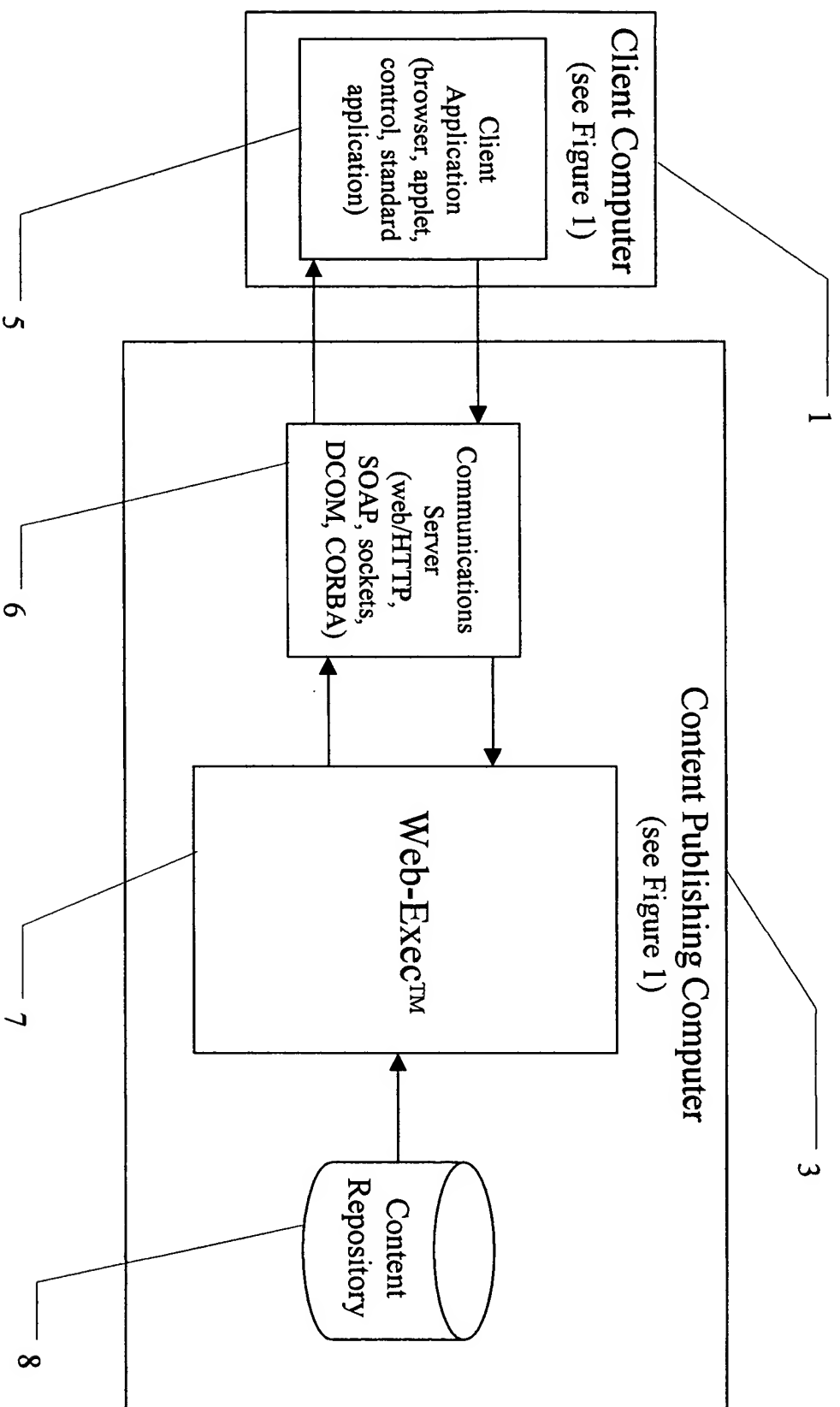


Figure 2

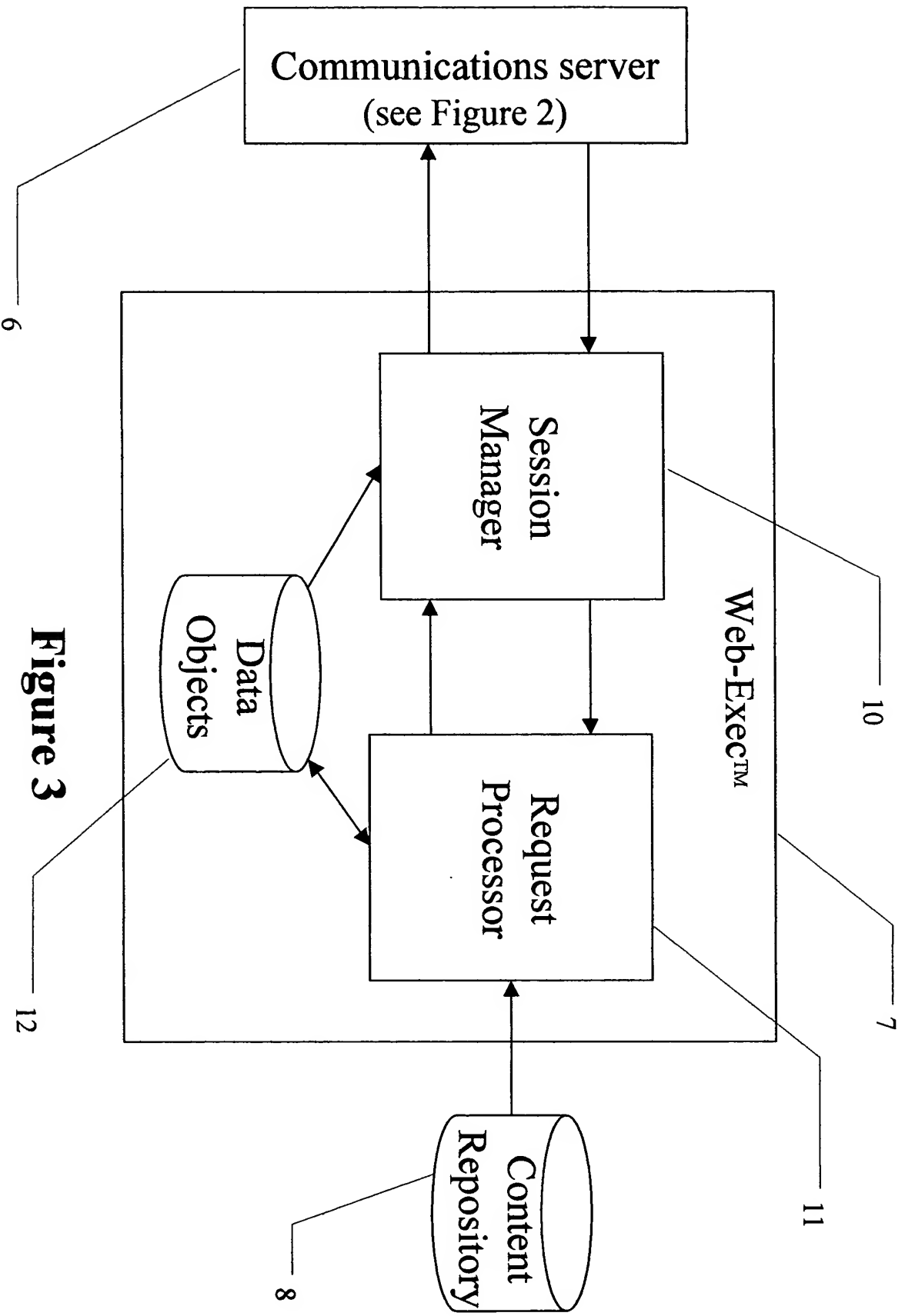


Figure 3

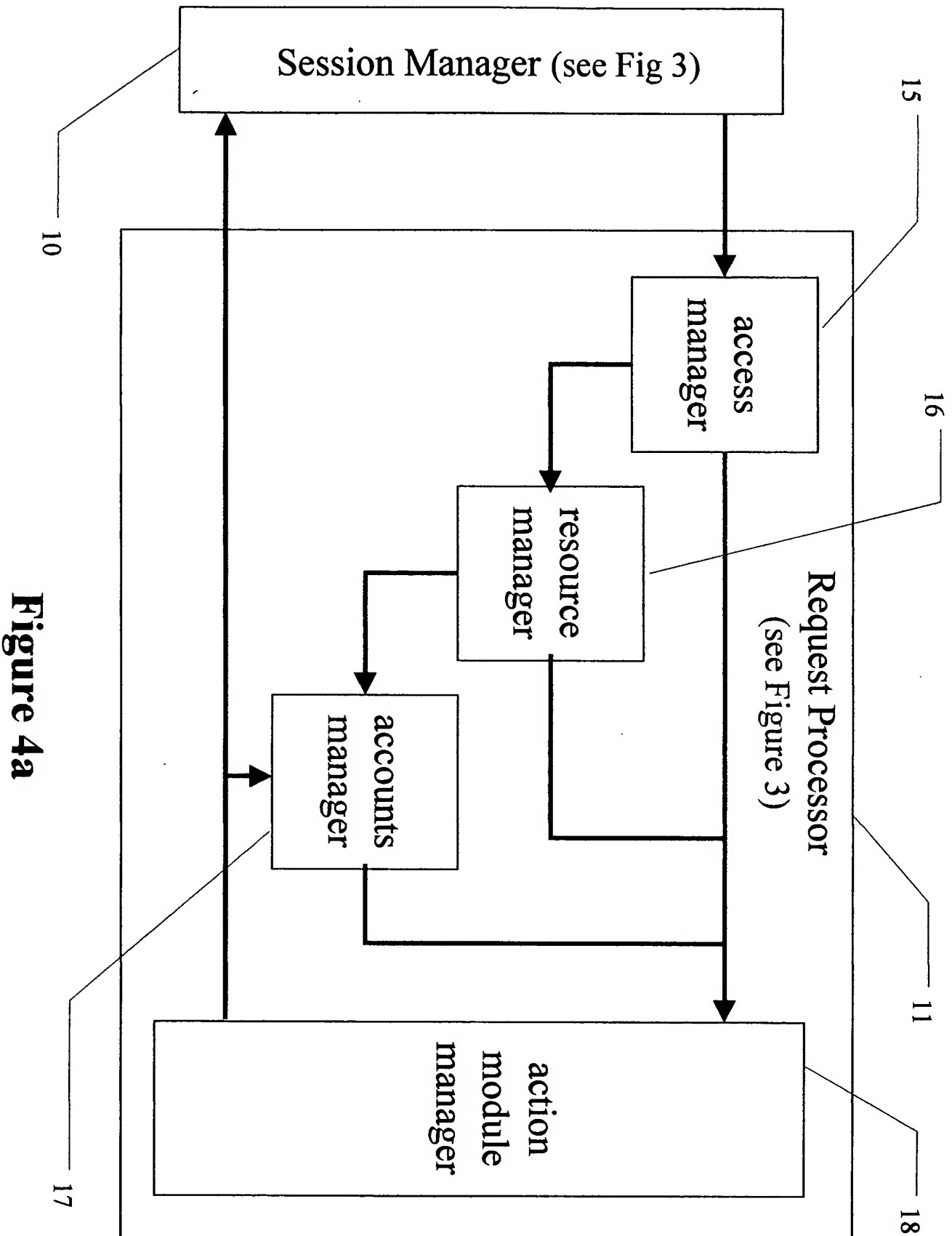
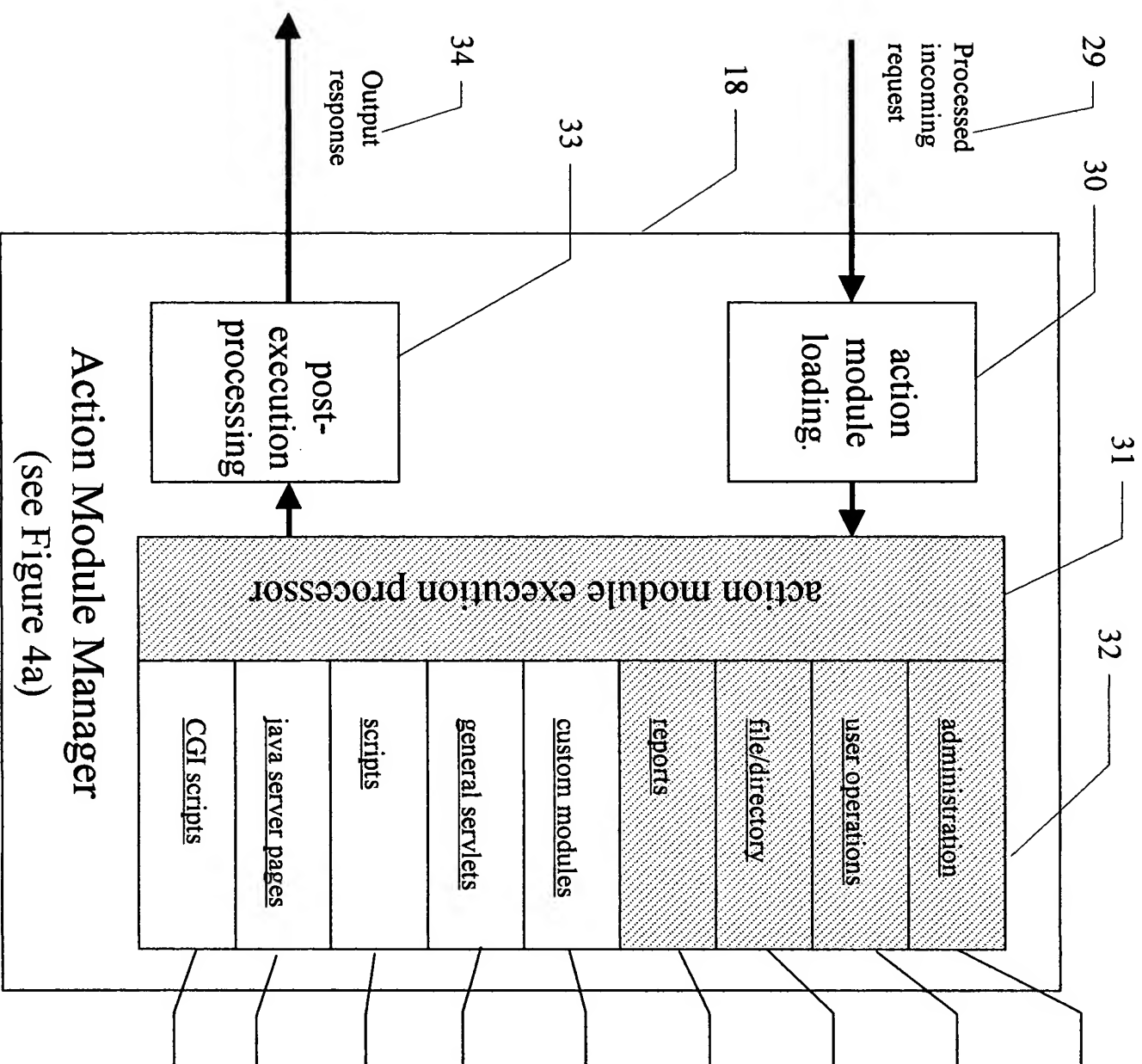


Figure 4a



users, groups, plans, resources, accesses, sessions, etc.

login, logout, redirect, change pref., credit processing, etc.

static (HTML, PDF, etc.), class (applets), audio, video, graphics, etc.

dynamic reports of all types, extracted from RDBMS tables, object stores

customized modules combining Java and HTML/XML code, and url requests.

standard Java servlets

standard scripting languages (Javascript, VBScript, etc.)

standard Java Server Pages

standard CGI scripts/programs

Figure 4b

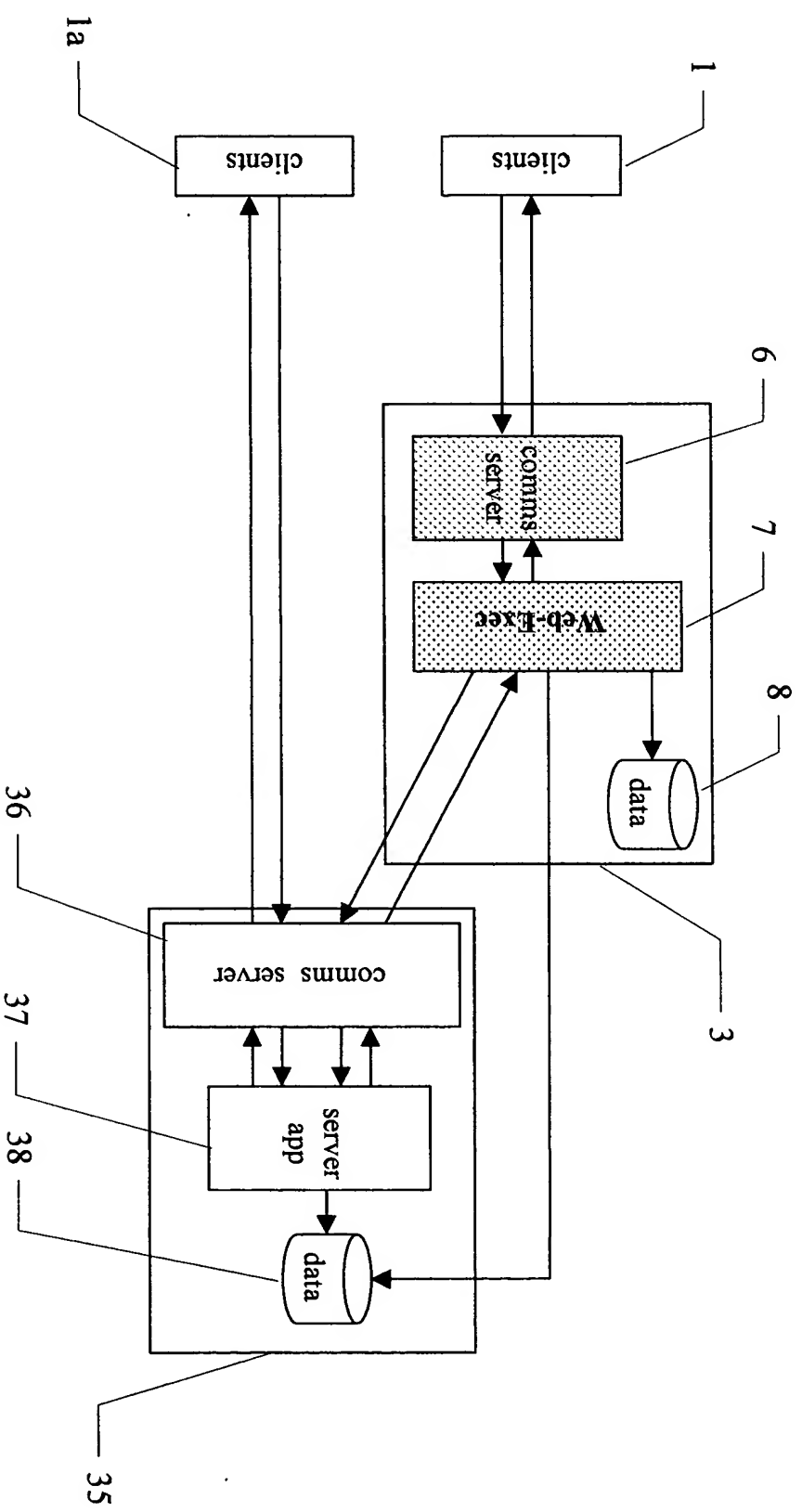


Figure 4c

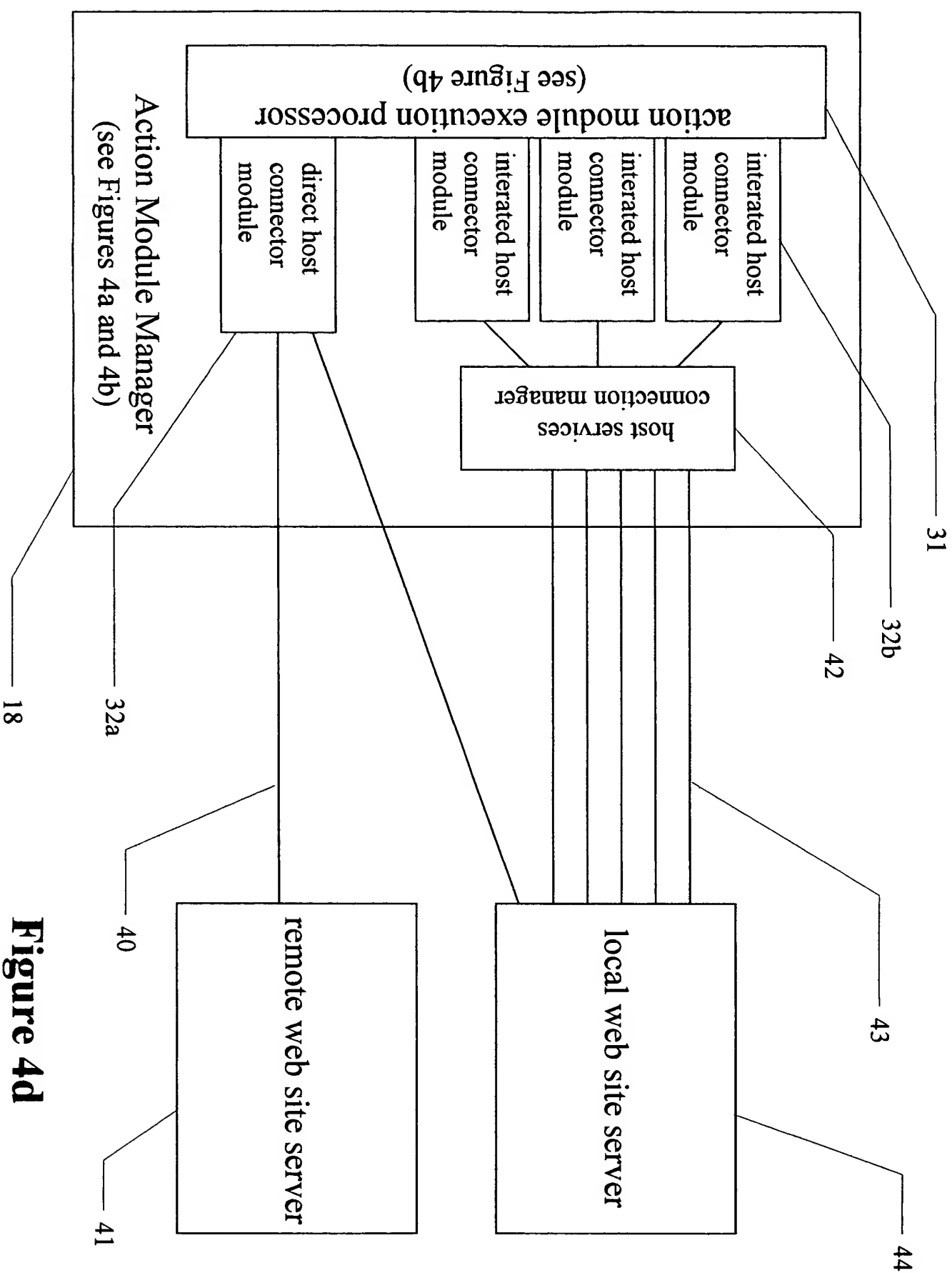
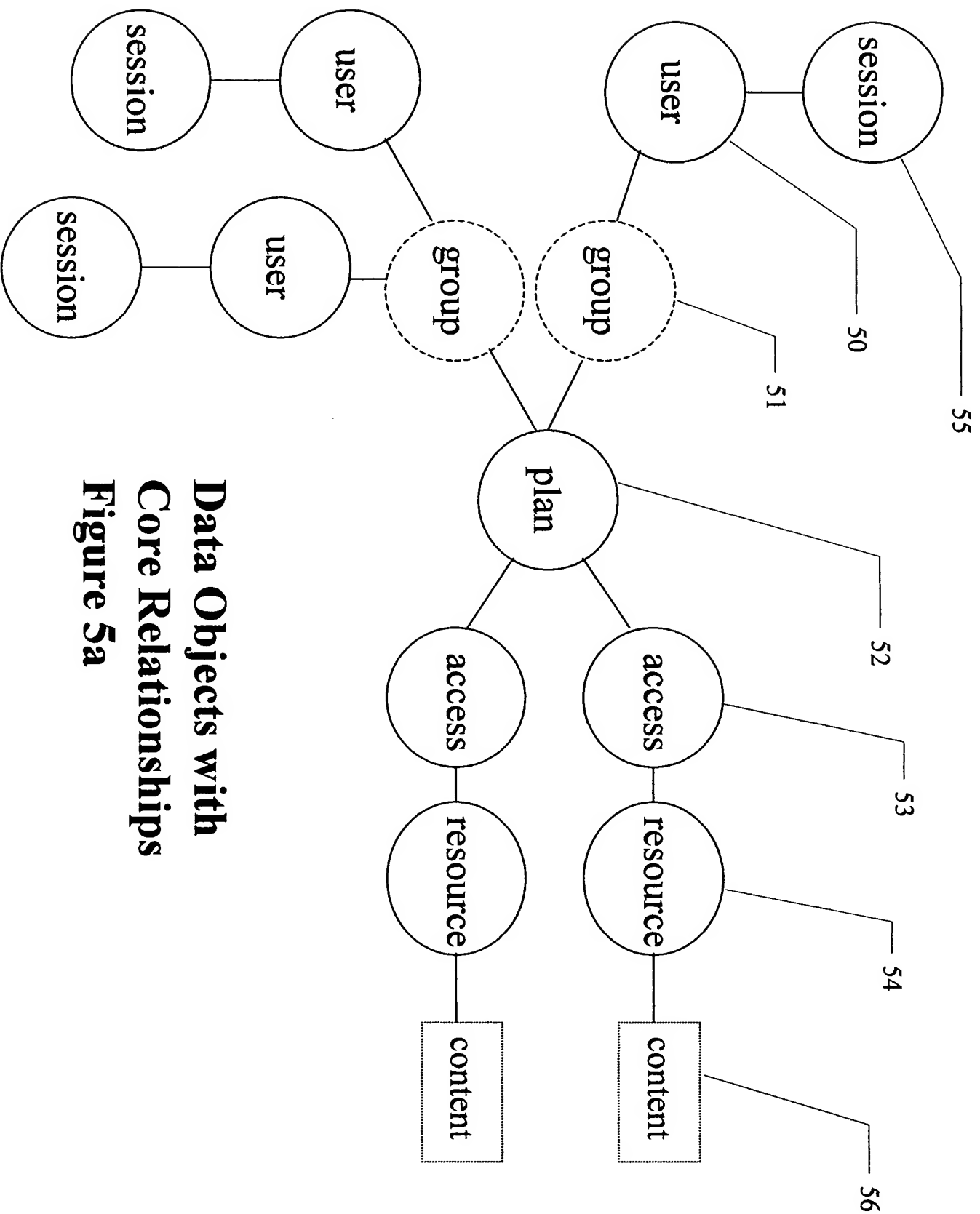
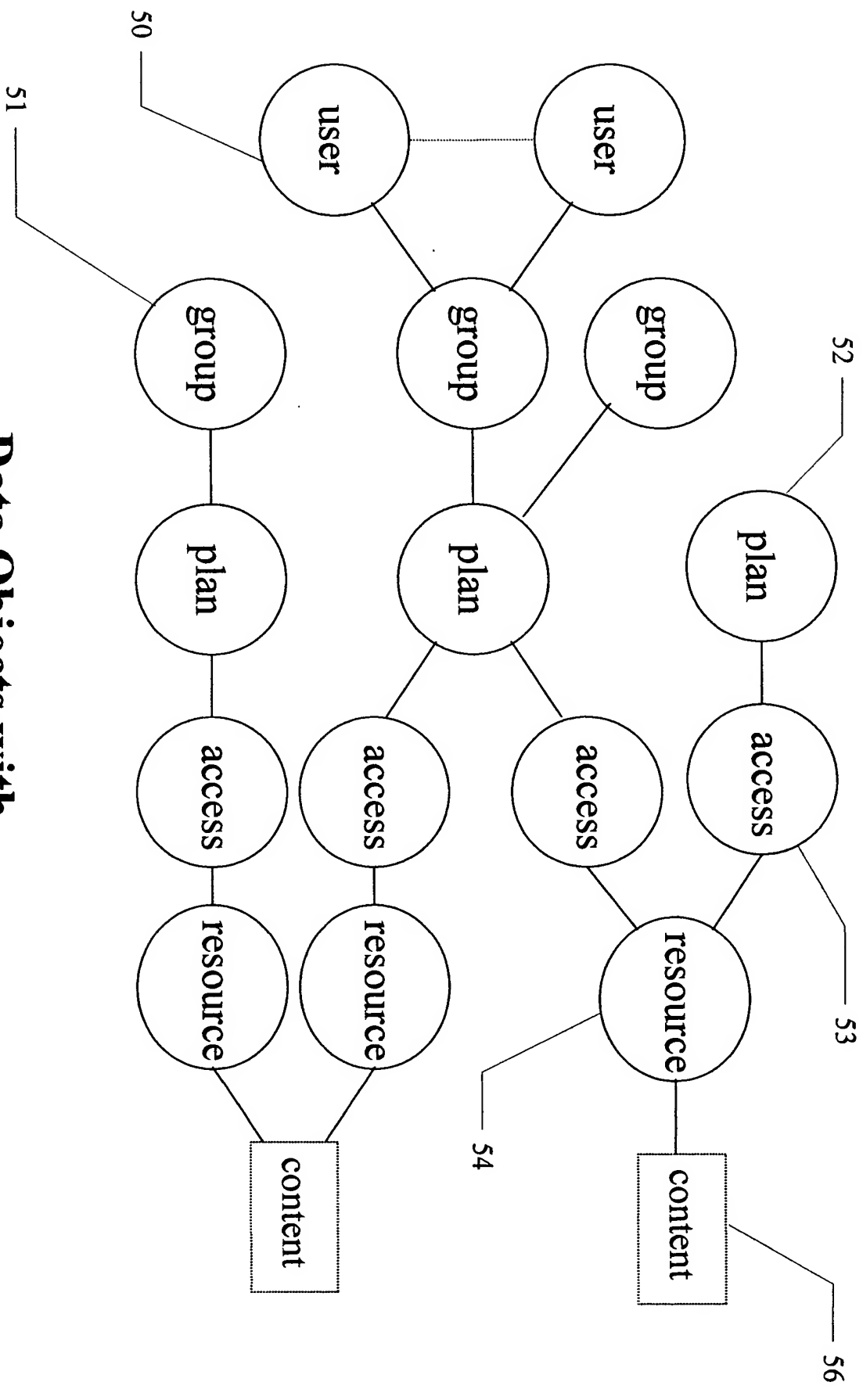


Figure 4d



**Data Objects with
Core Relationships
Figure 5a**



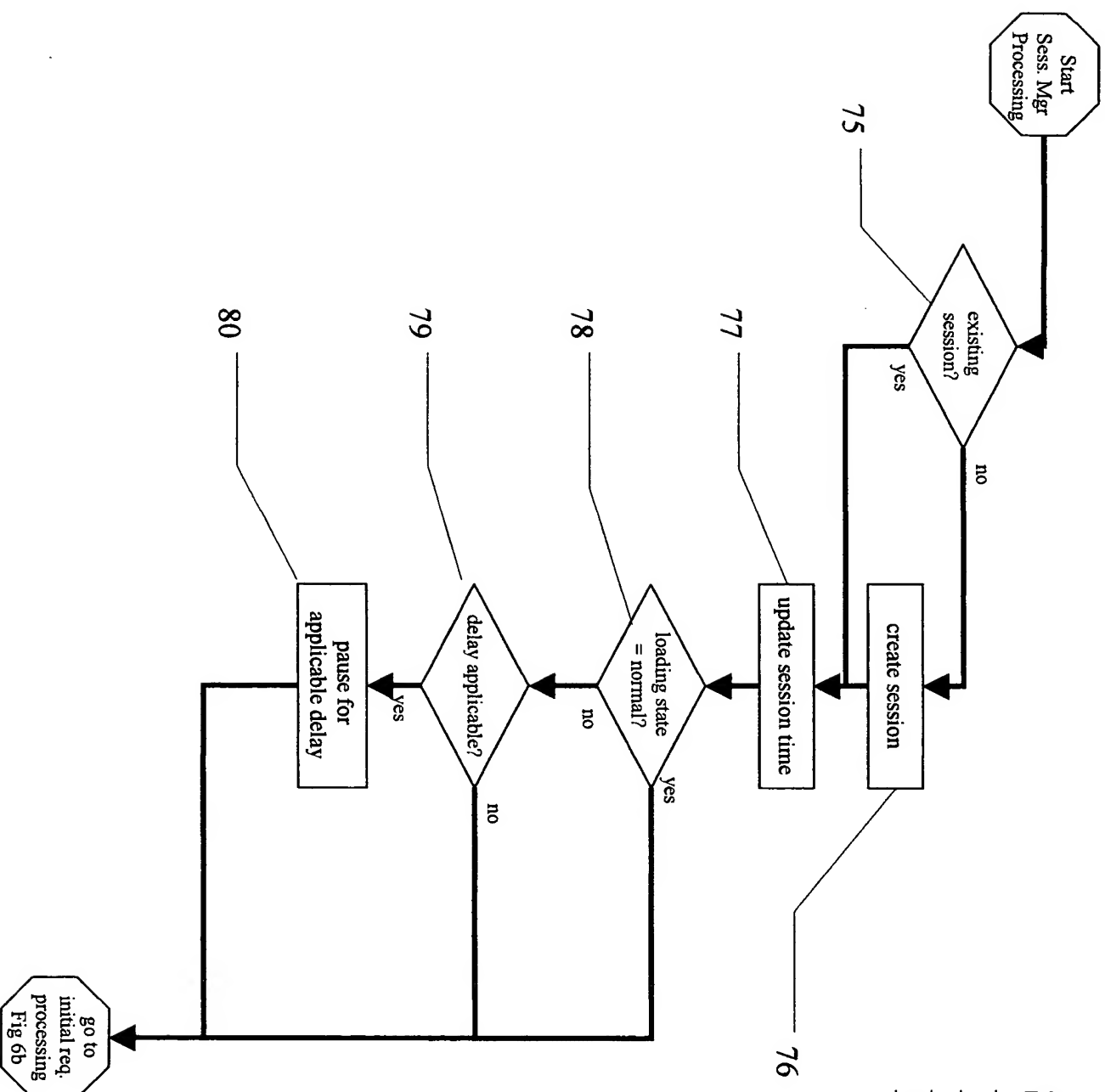
**Data Objects with
Extended Relationships
Figure 5b**

user	group	plan	access	resource	session
user_name password expiration_date group account_balance credit_balance disabled_flag credit_account_update administrator_level confirm confirm_total confirm_sess_trigger confirm_threshold activation_code activation_code_expire pwd_chg_allowed concurrent_limit concurrent_number concurrent_charge concurrent_action last_login email credit_limit	group_name plan credit_limit max_user_credit credit_balance payment_amount payment_interval next_payment_due grace_period account_balance max_user_balance group_manager discount disable grouptype	plan_name base_discount use_credit_flag secure_mode volume_discount volume_level	plan resource access_flag	resource_name description location credits price suppress_duplicates summary keywords alias	session_id user plan current_url previous_url visited_urls purchases credits temp_account balance verify_purchase verify_credit last_visited max_idle max_life max_expire

Key properties of Data Objects

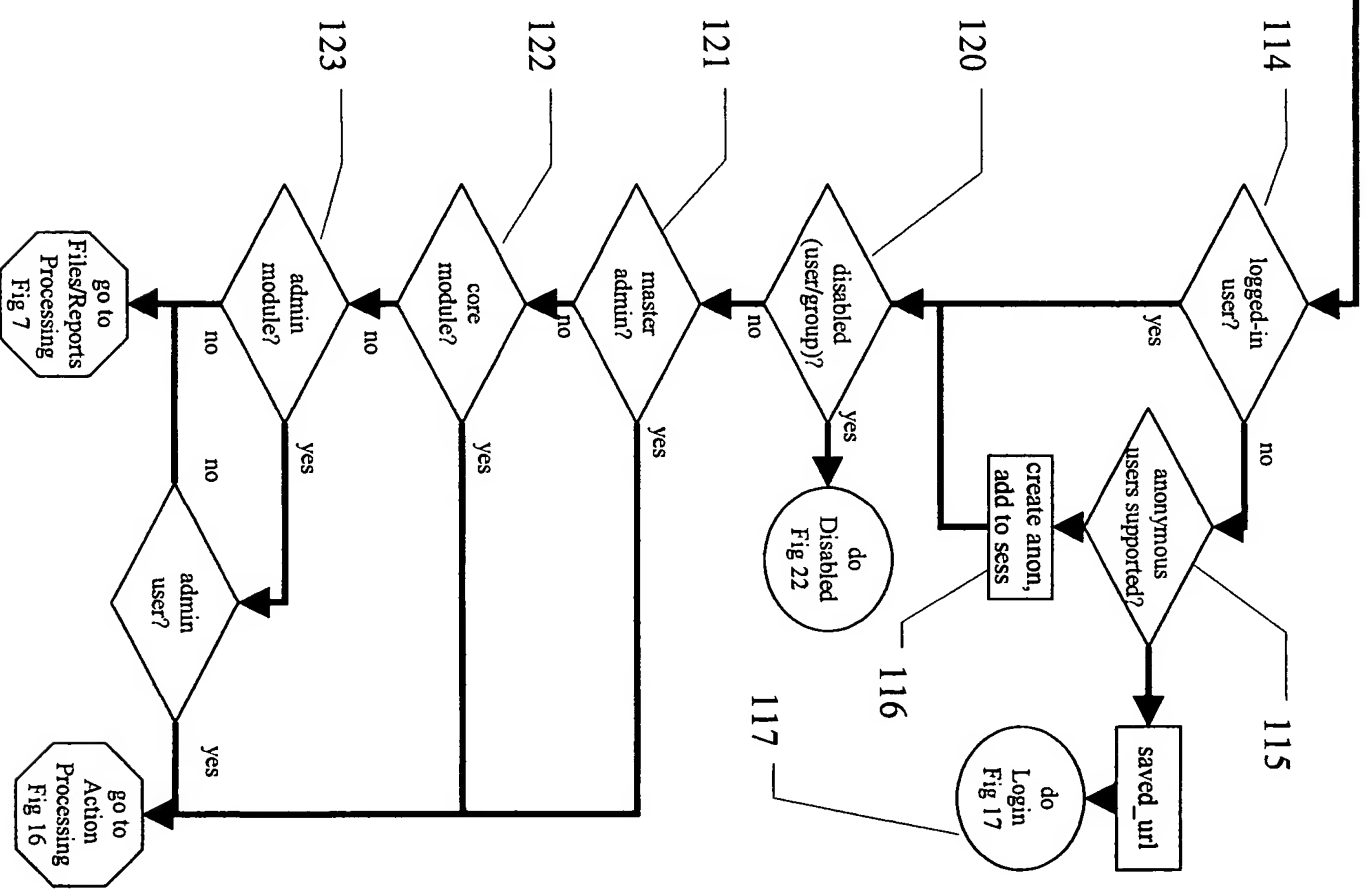
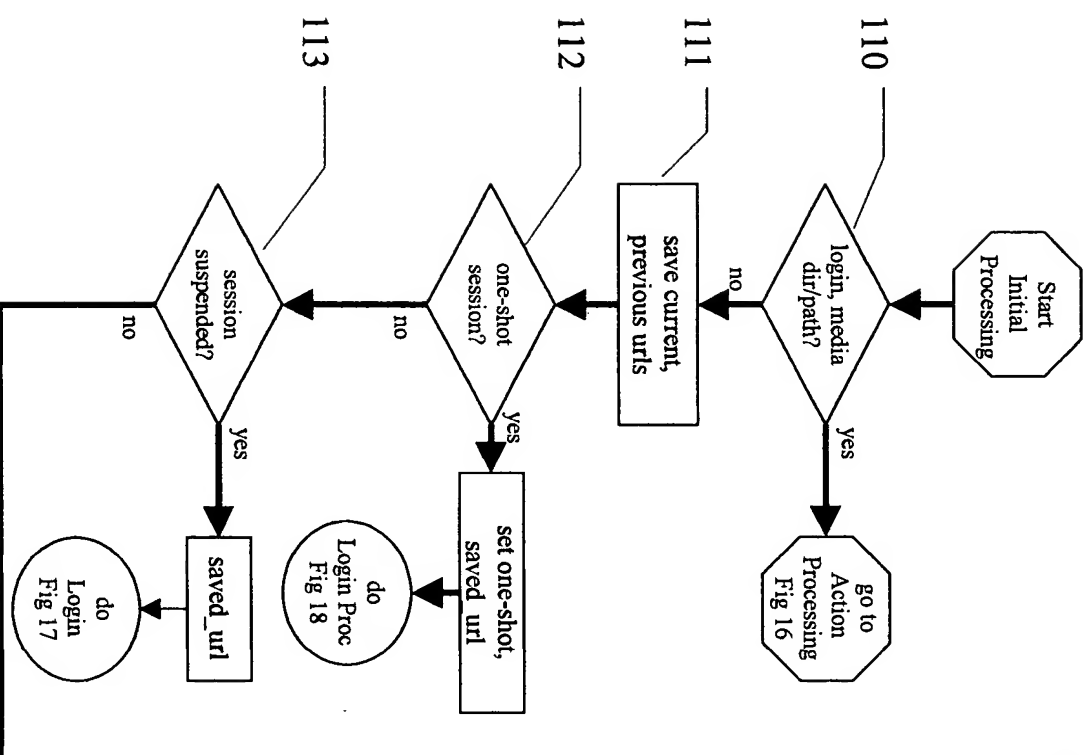
Figure 5c

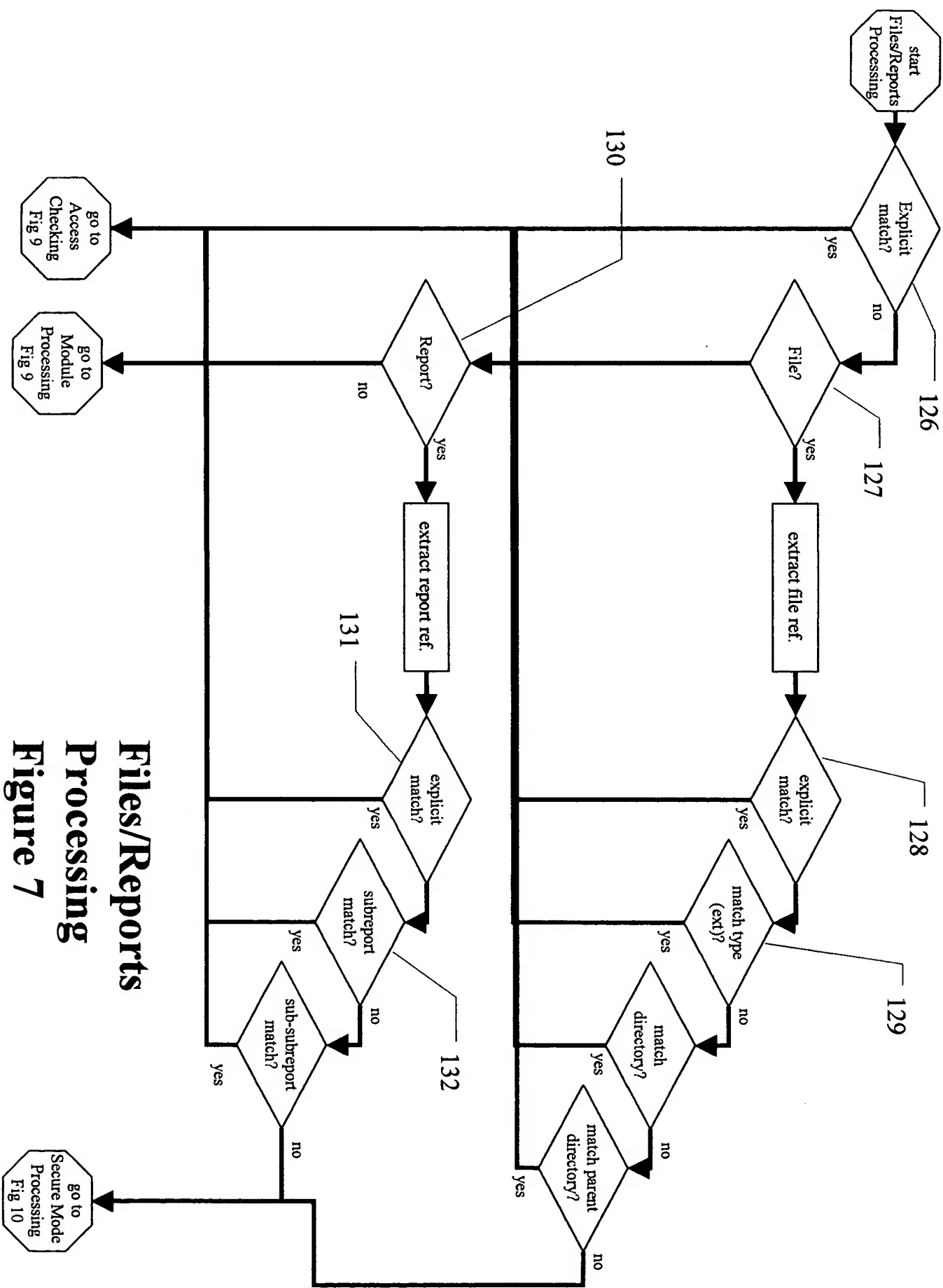
Session Manager Processing Figure 6a



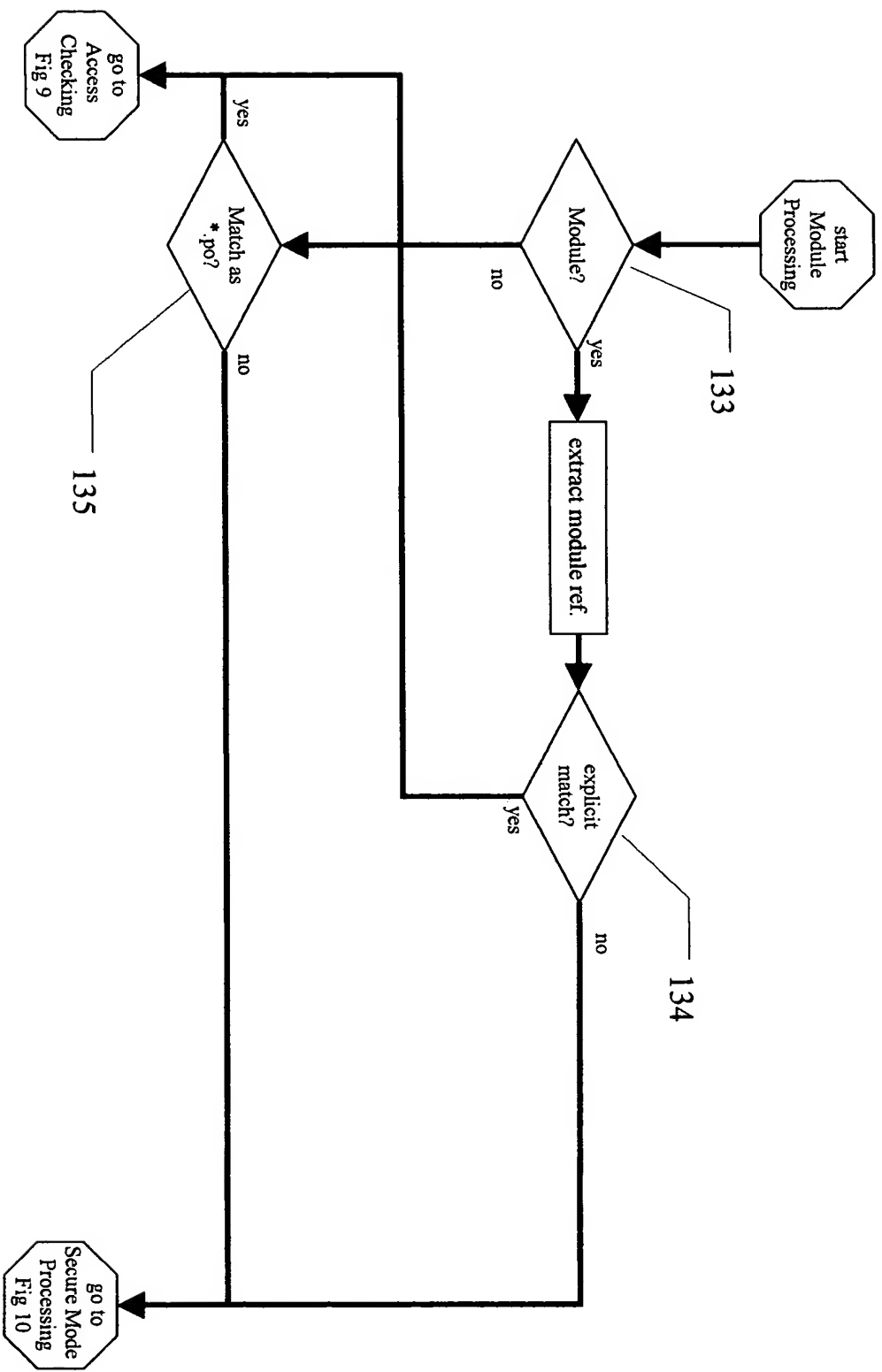
Initial Request Processing

Figure 6b

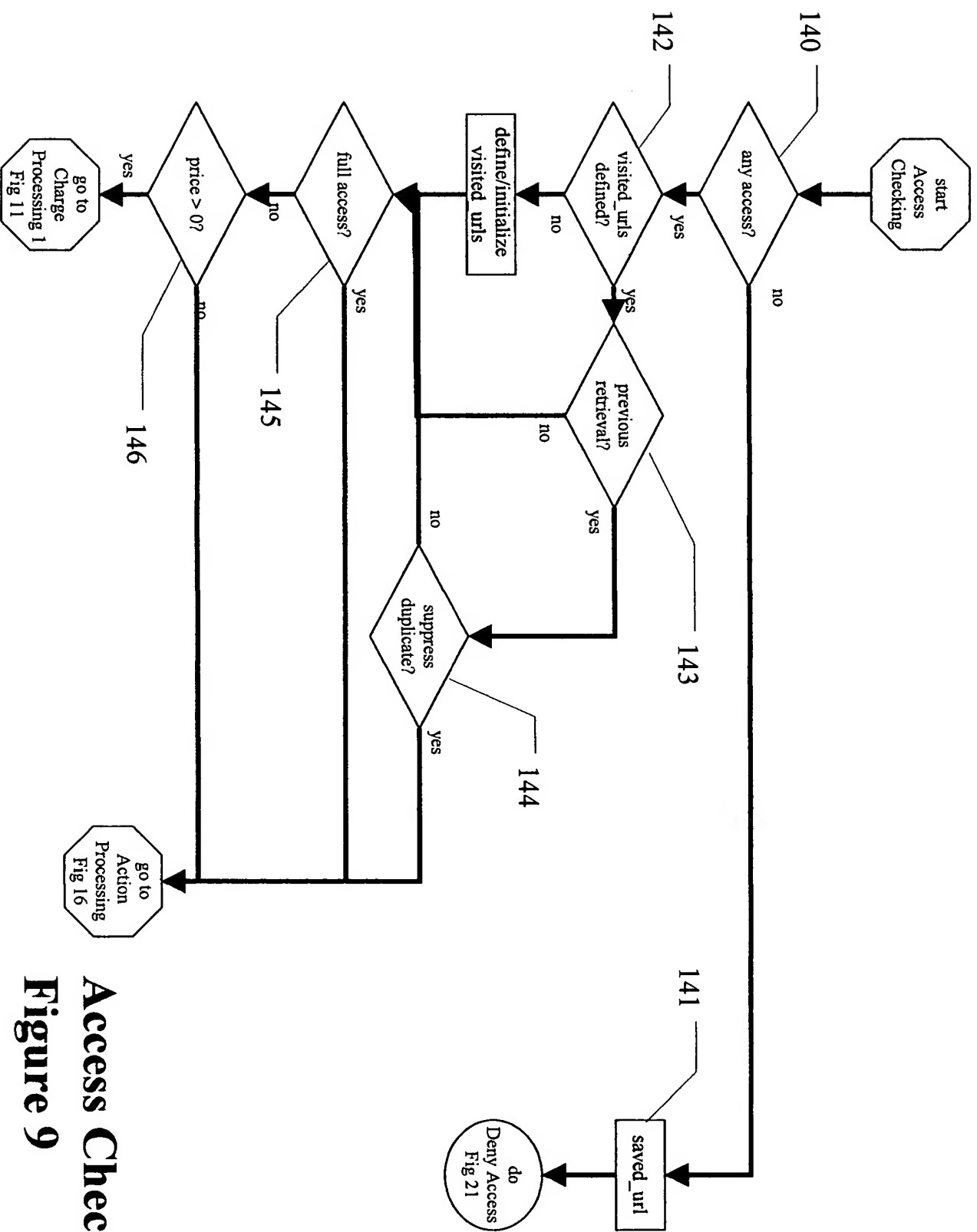




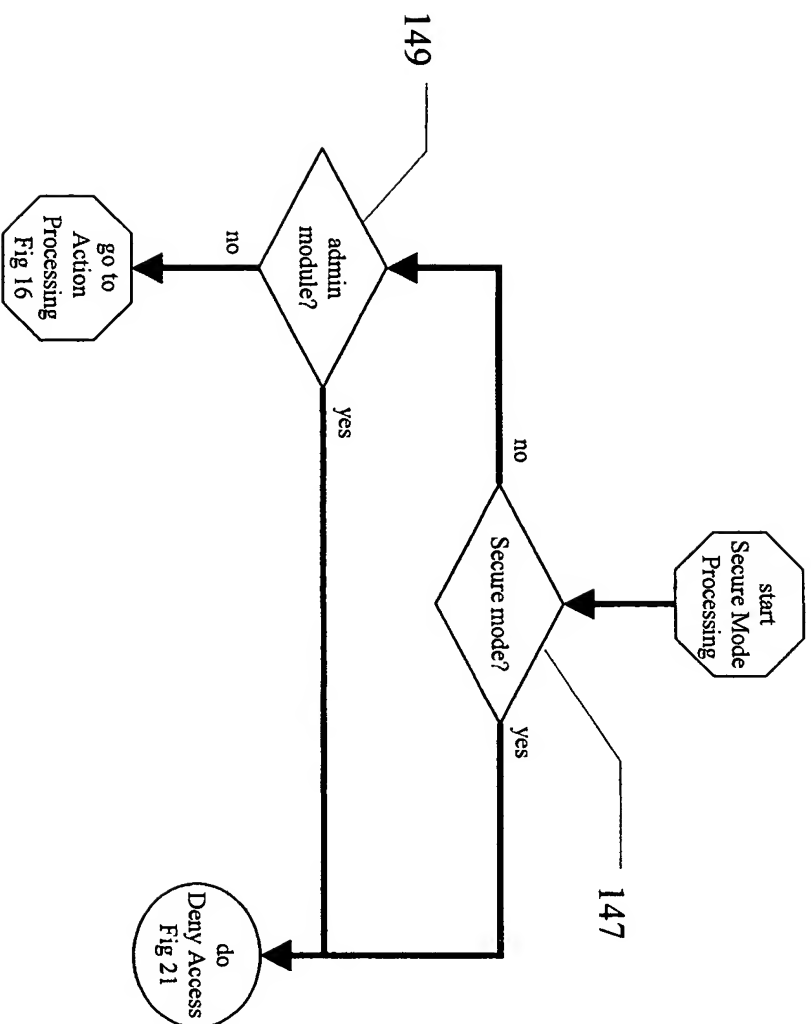
Files/Reports Processing
Figure 7



Module Processing
Figure 8



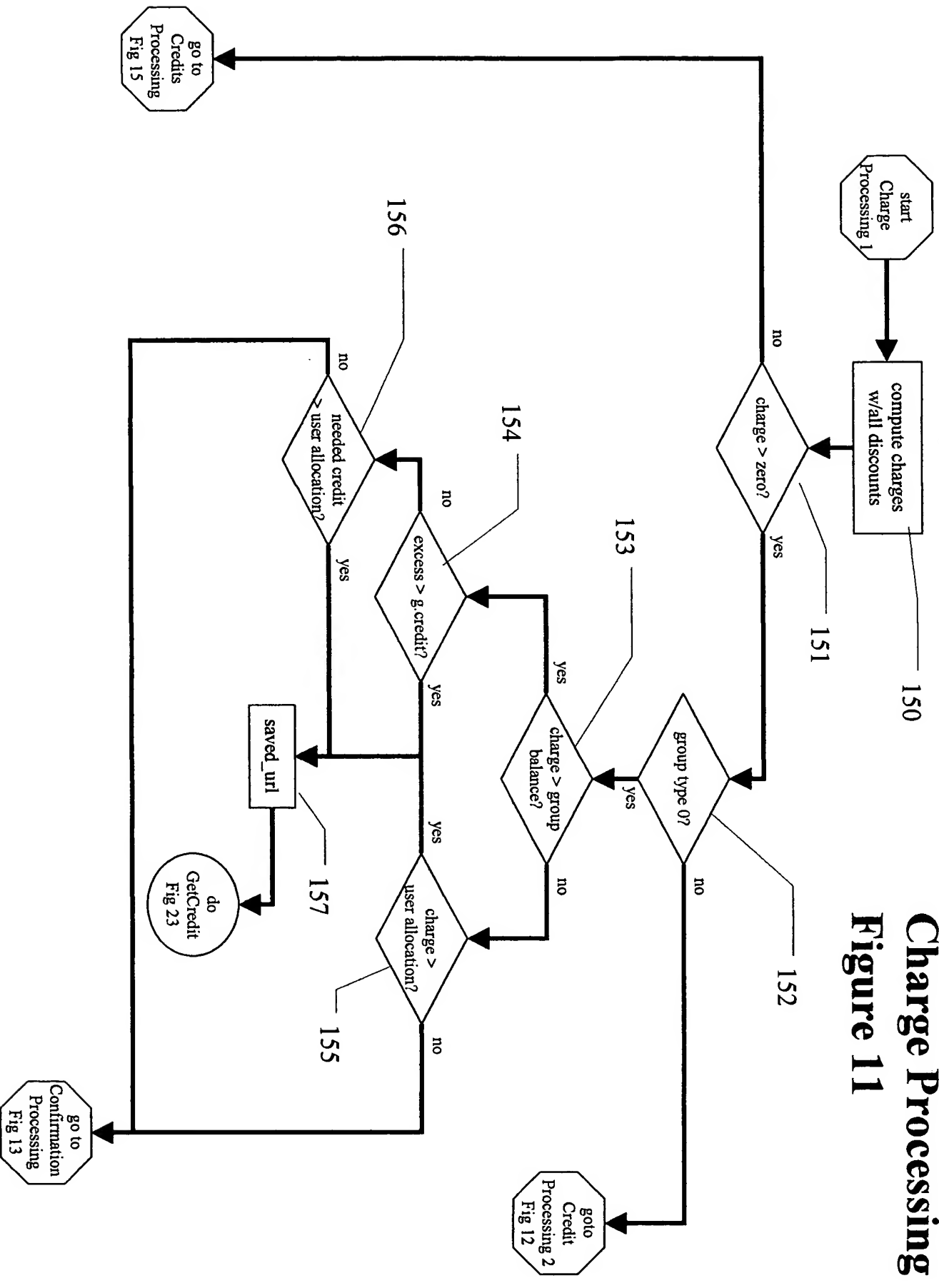
Access Checking
Figure 9



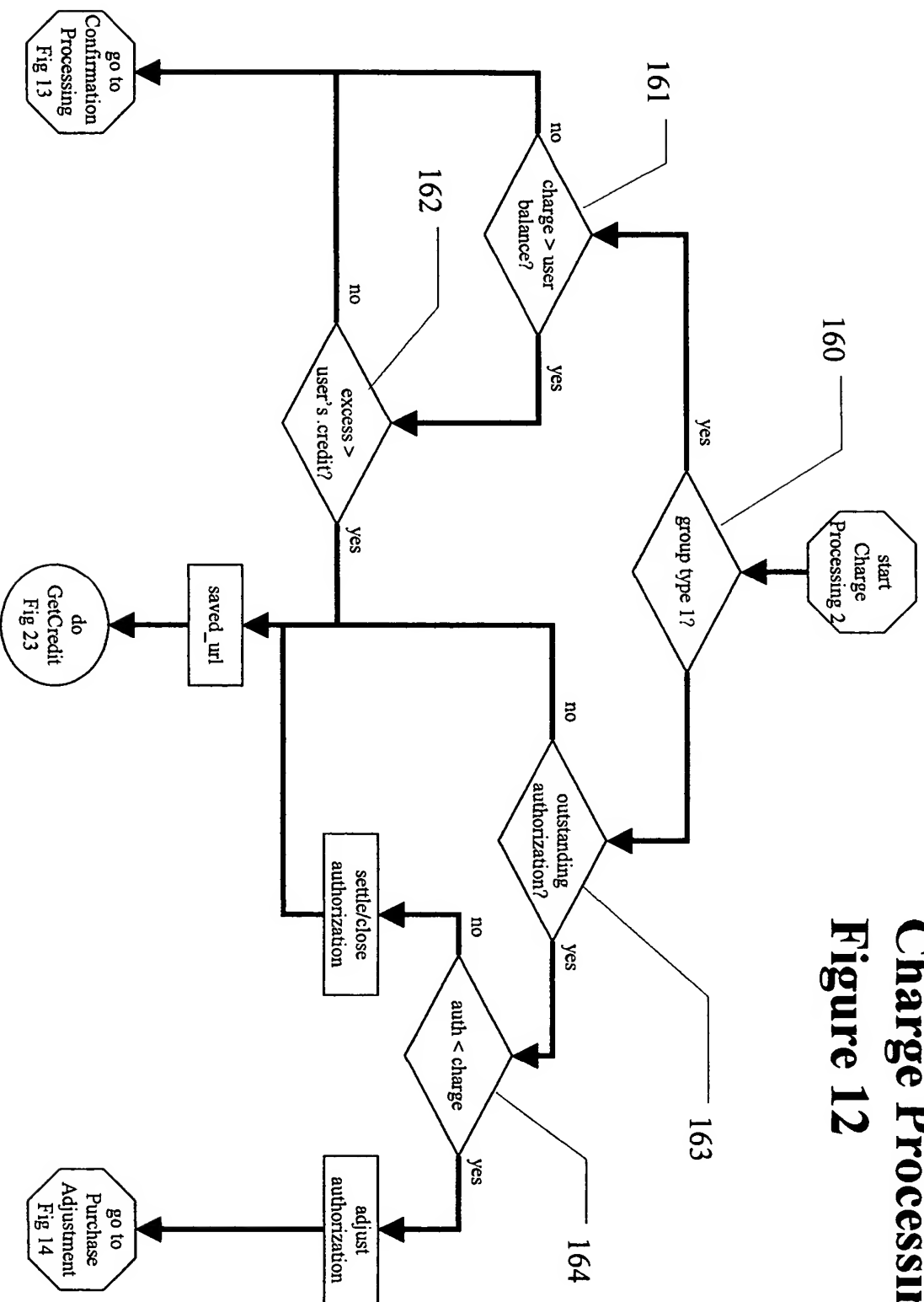
Secure Mode Processing
Figure 10

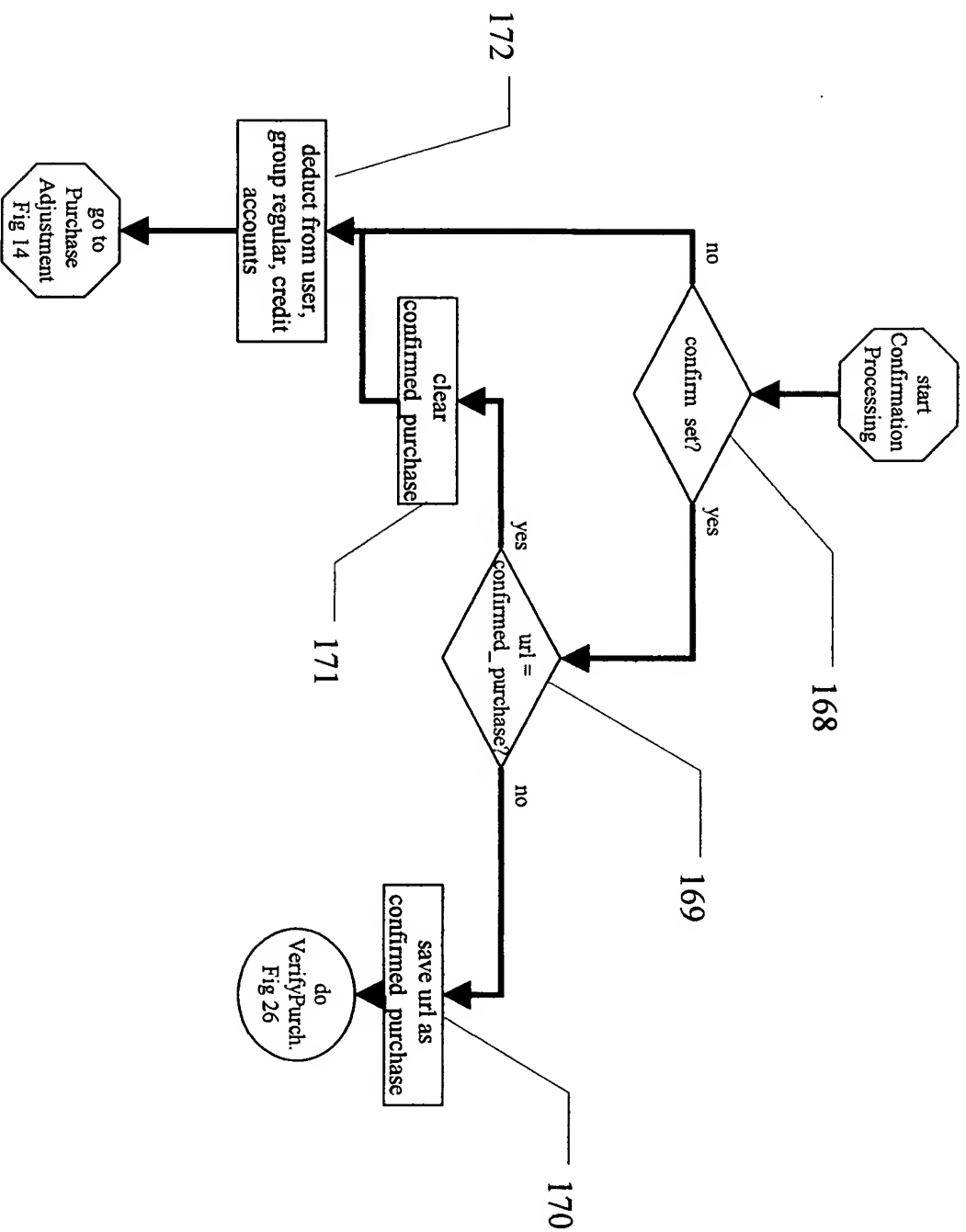
Charge Processing 1

Figure 11

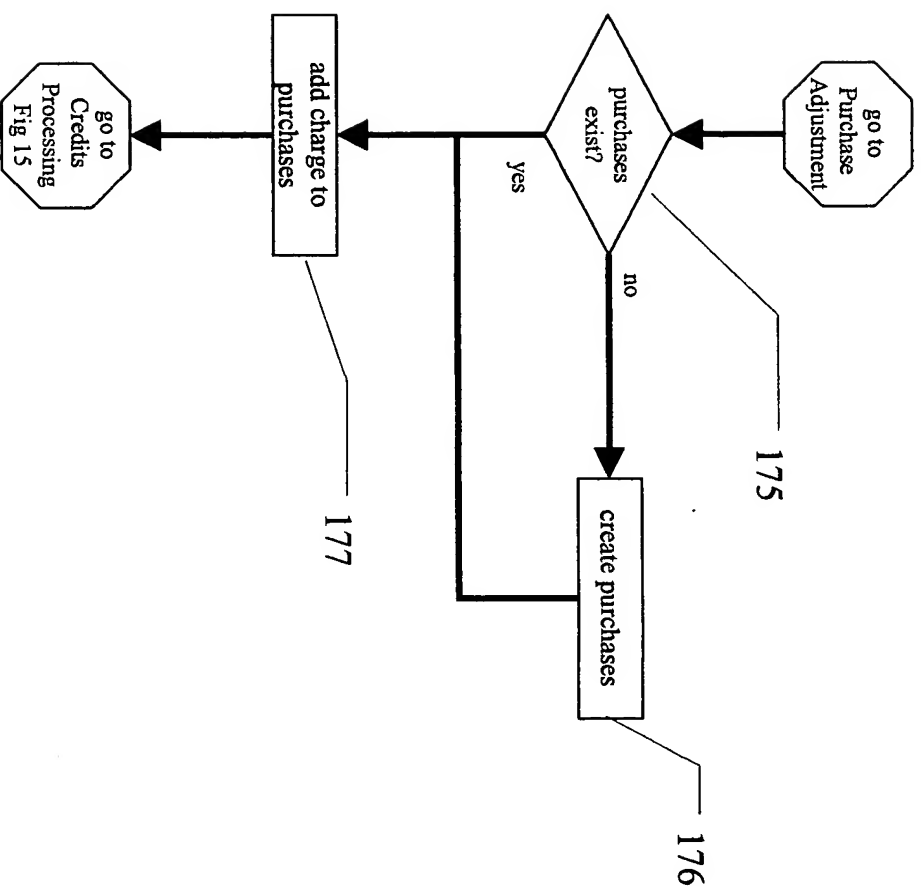


Charge Processing 2 Figure 12

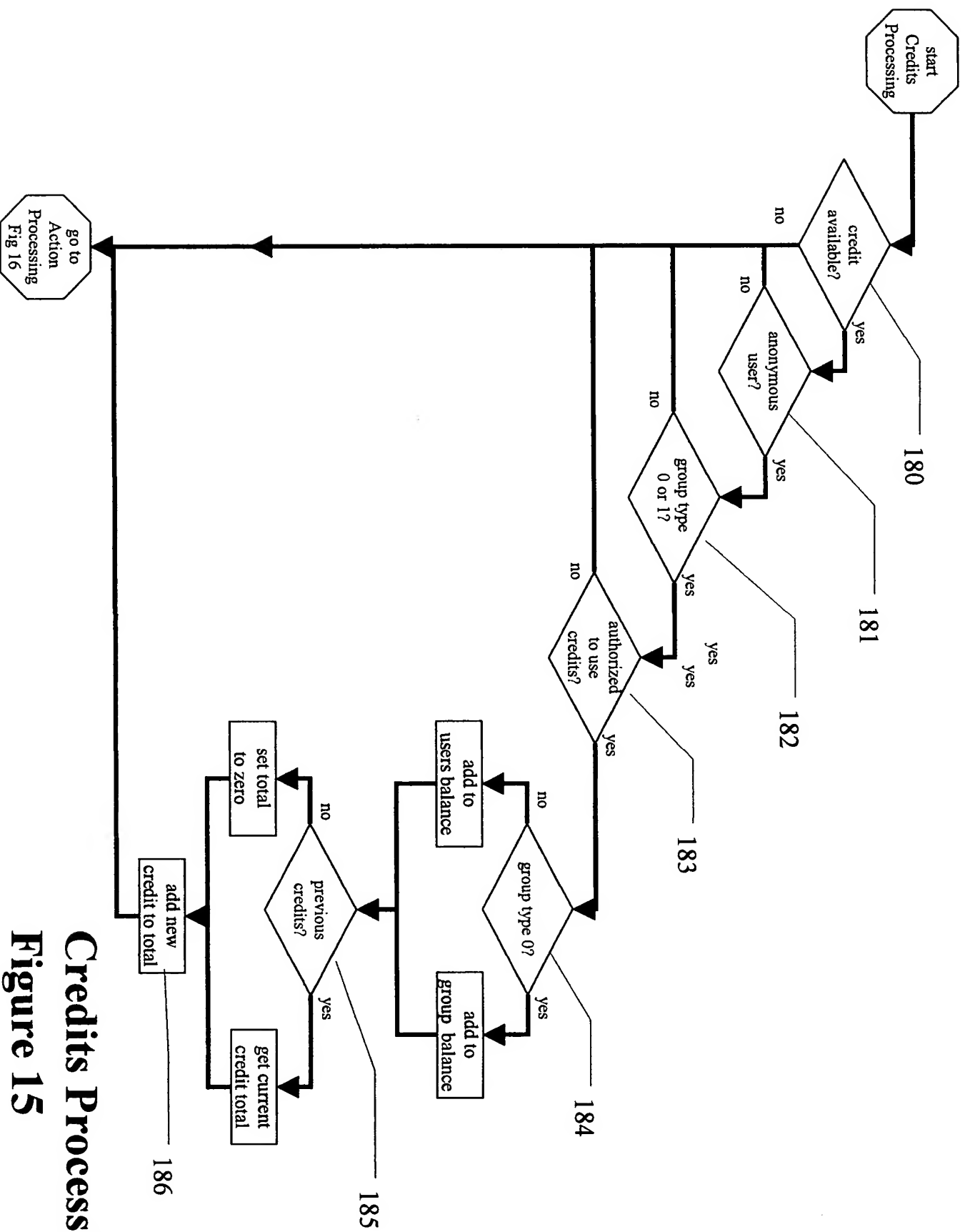




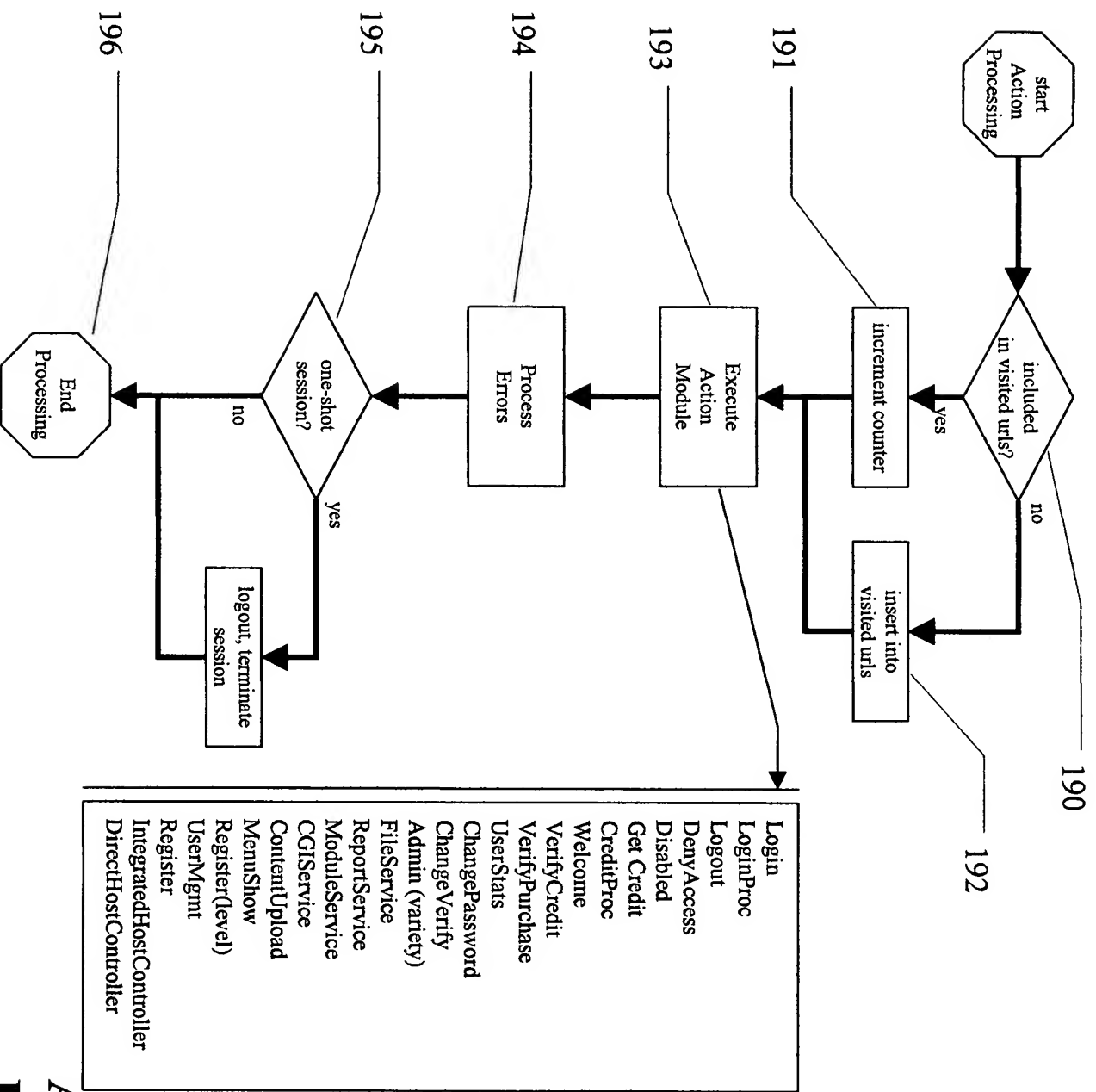
Confirmation Processing
Figure 13



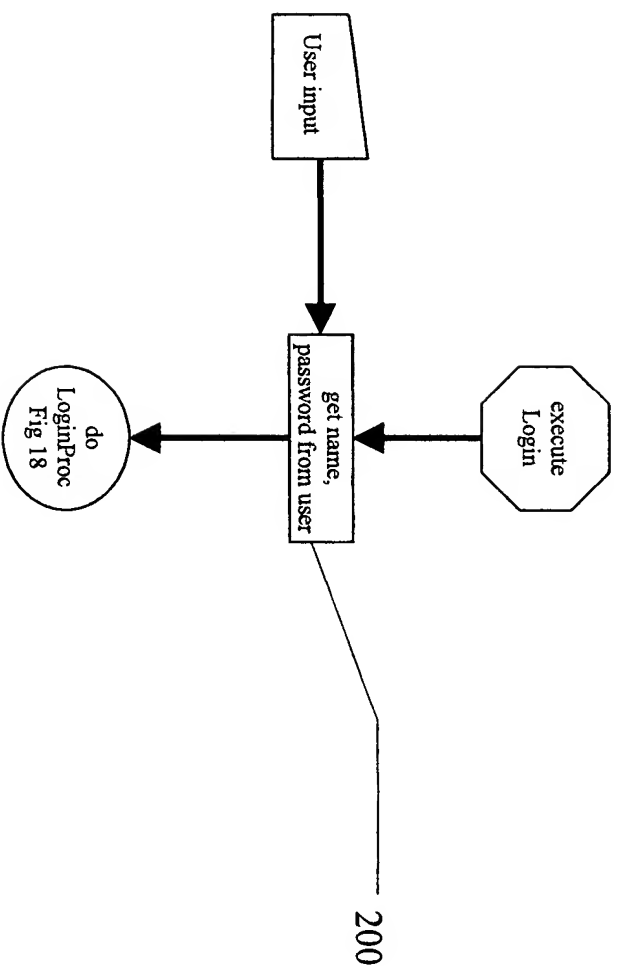
Purchase Adjustment
Figure 14



Credits Processing
Figure 15



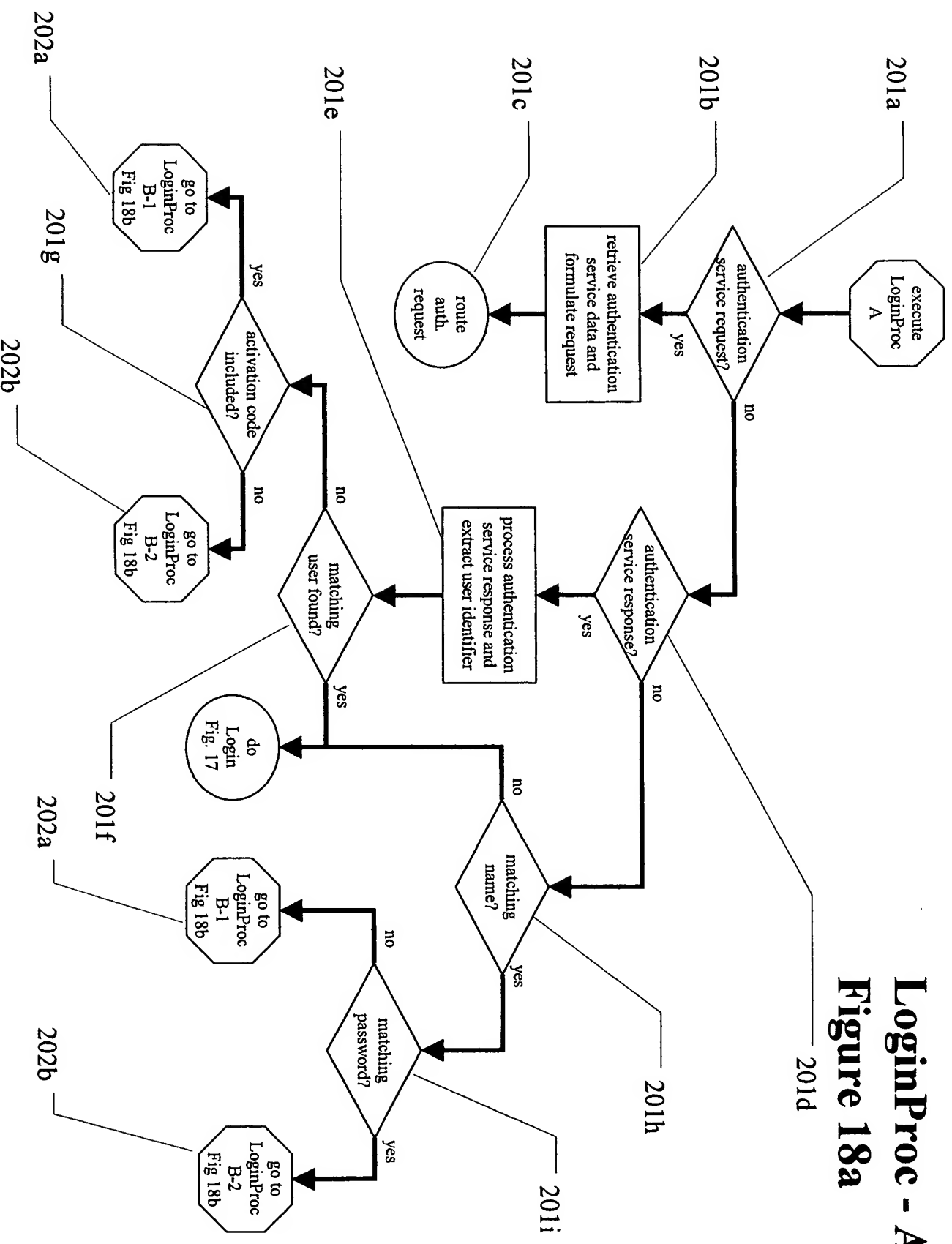
Action Processing
Figure 16



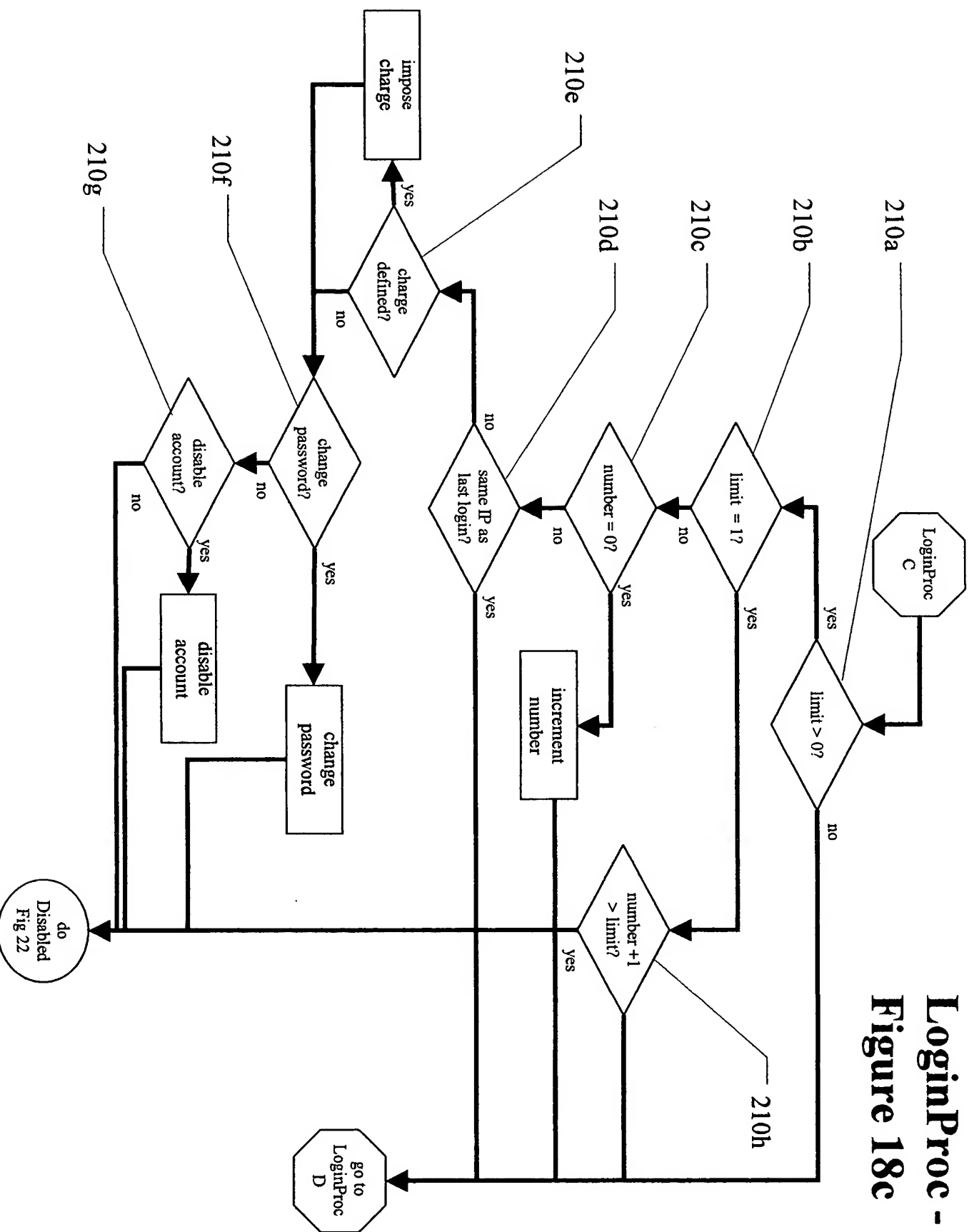
Login
Figure 17

LoginProc - A

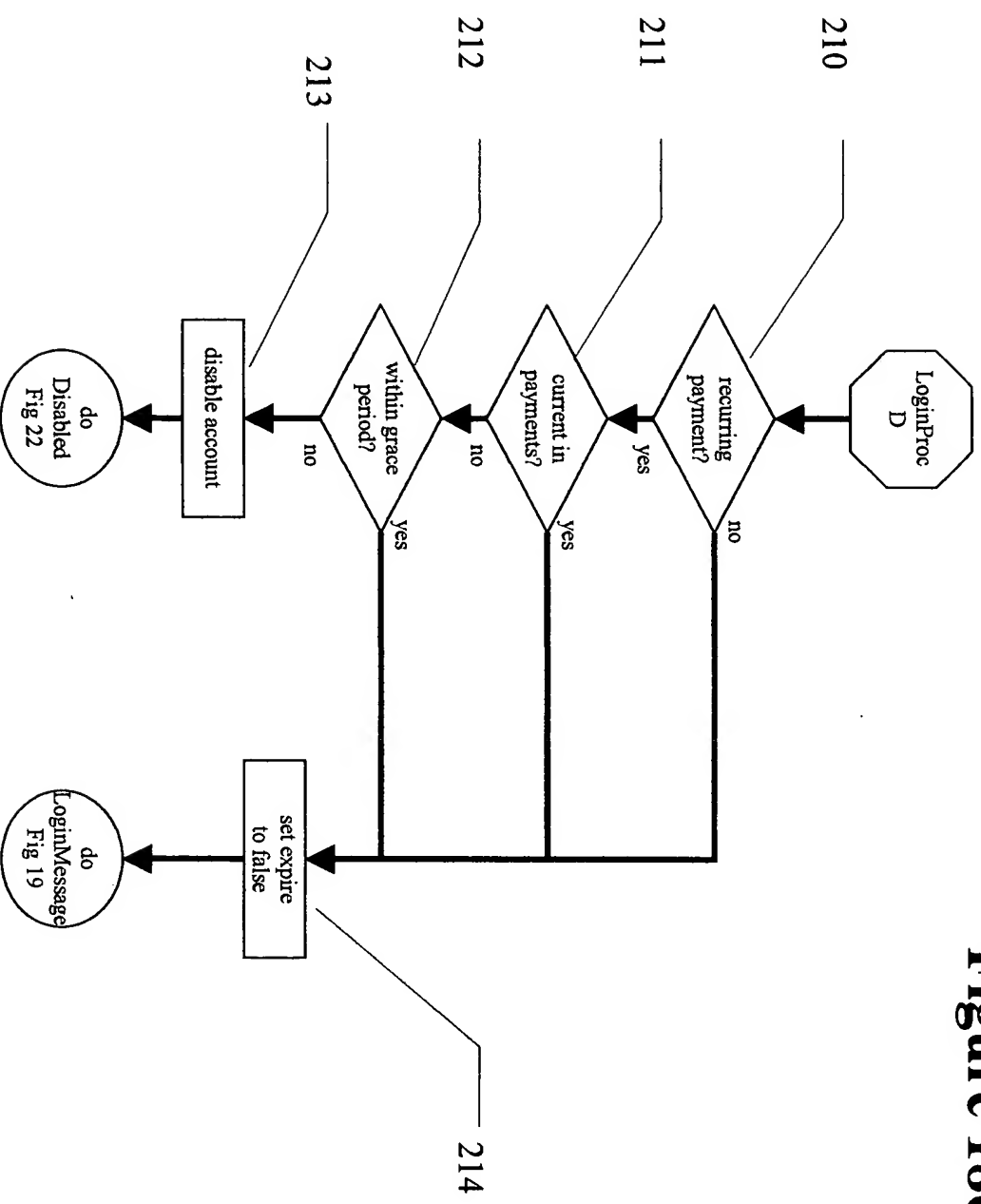
Figure 18a



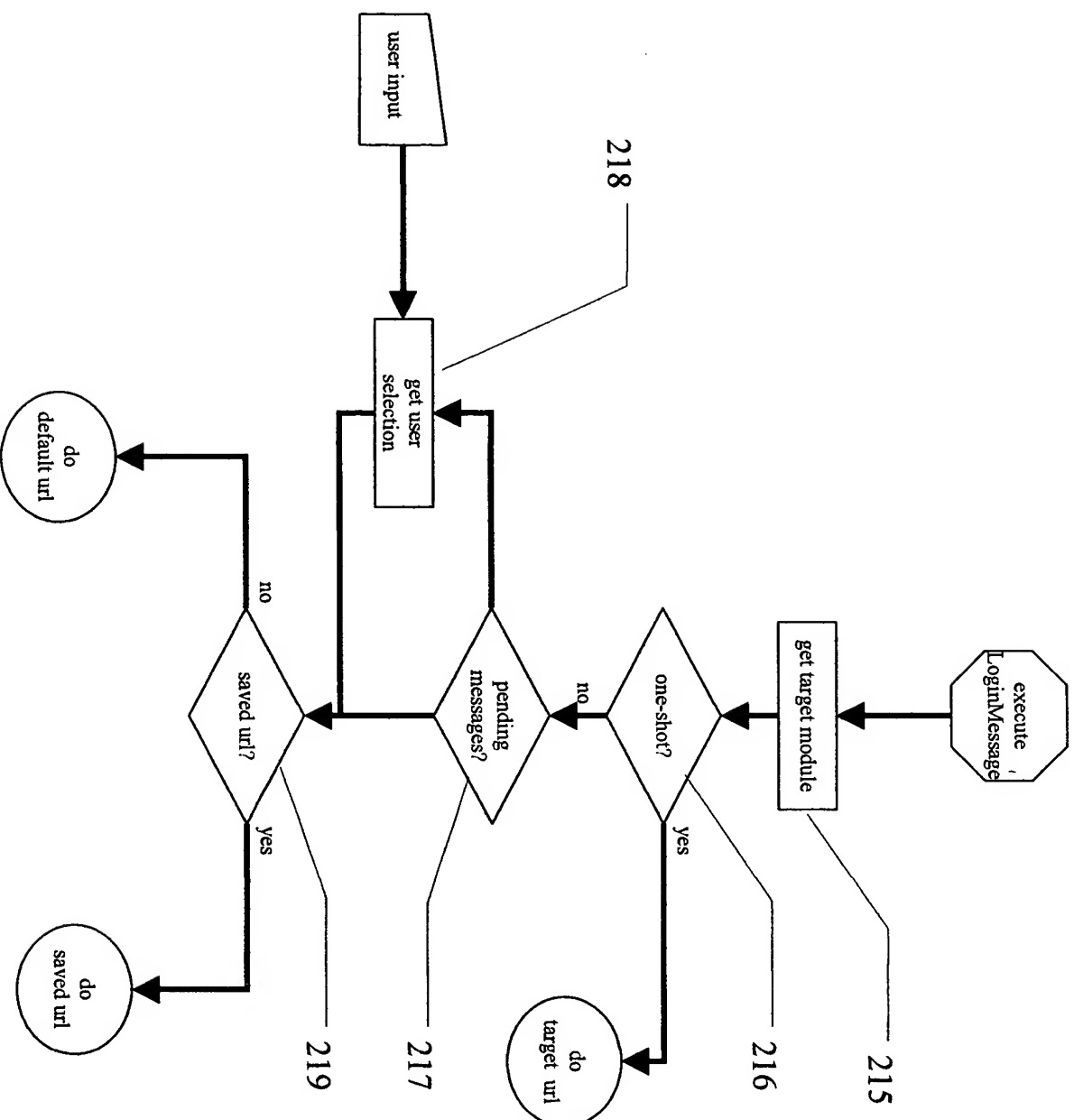
LoginProc - C
Figure 18c

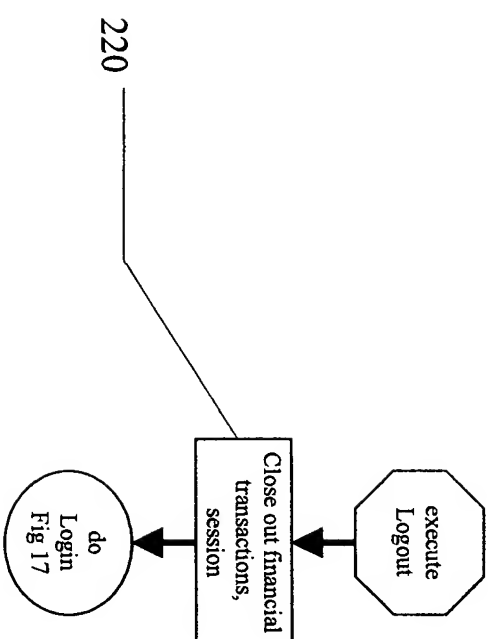


LoginProc - D
Figure 18d

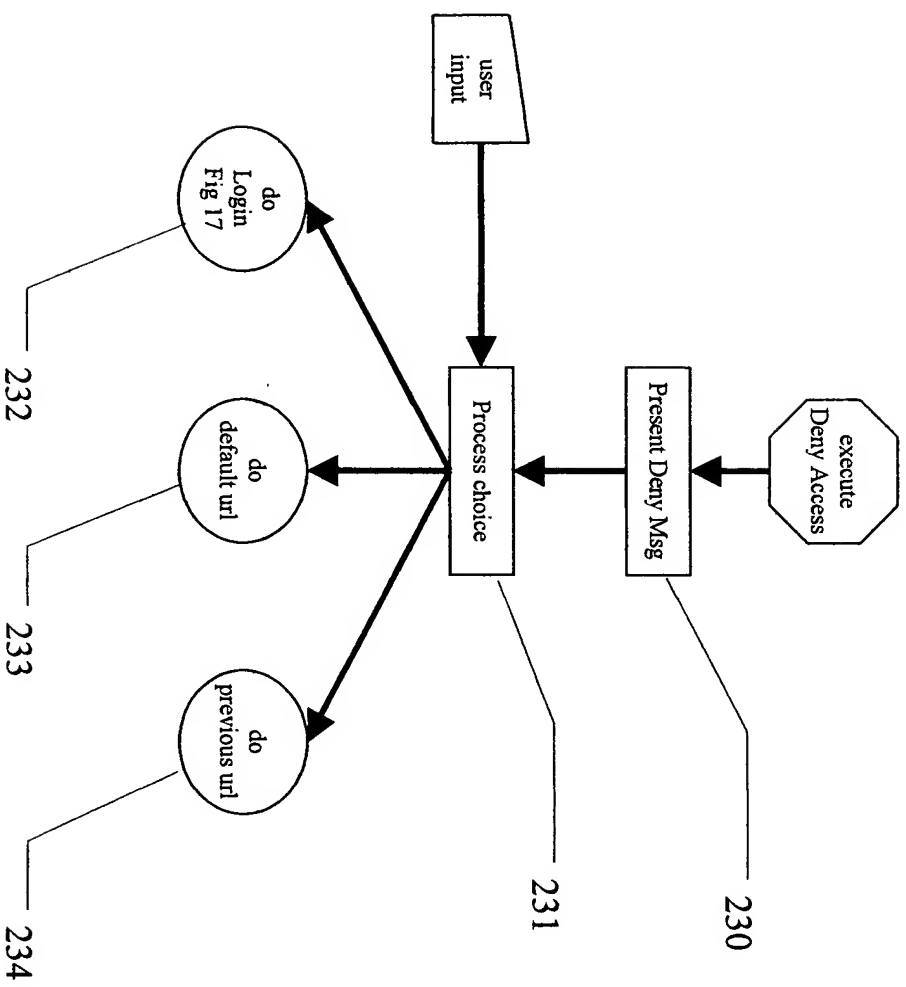


LoginMessage
Figure 19

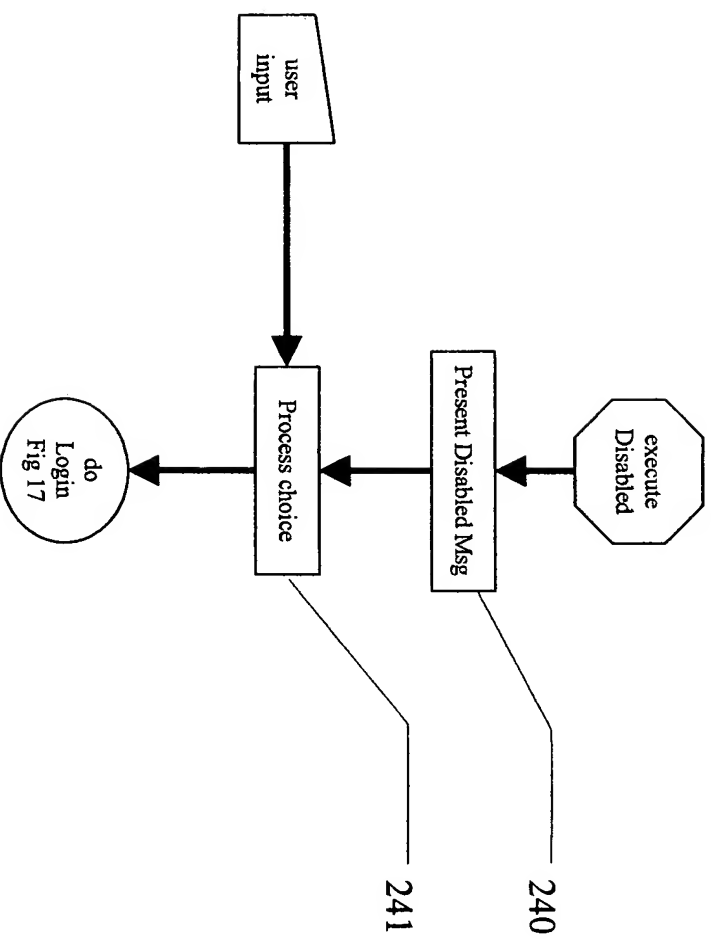




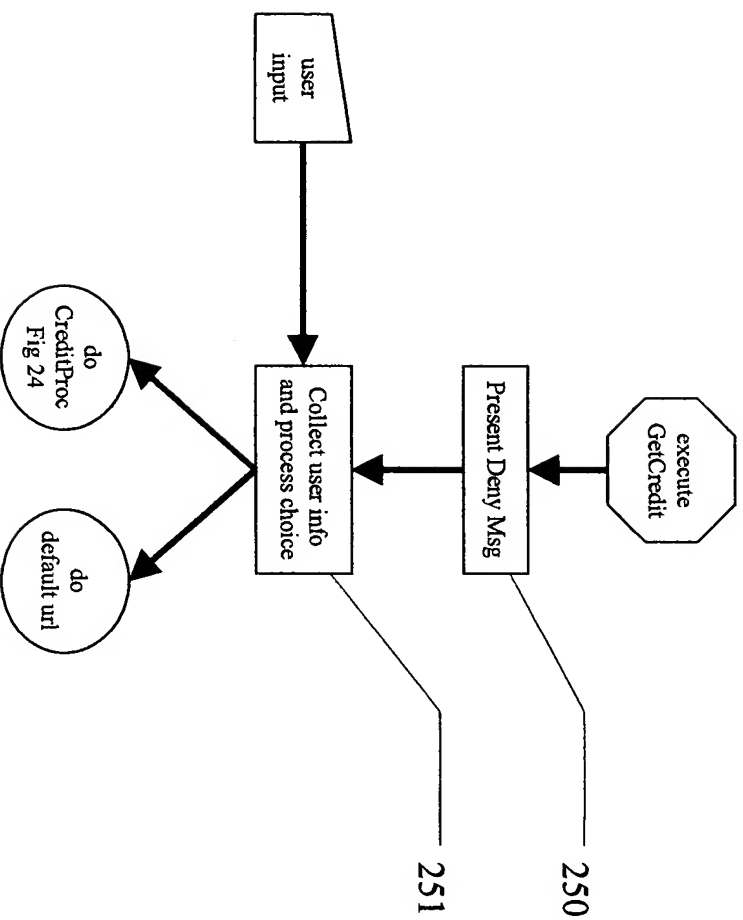
Logout
Figure 20



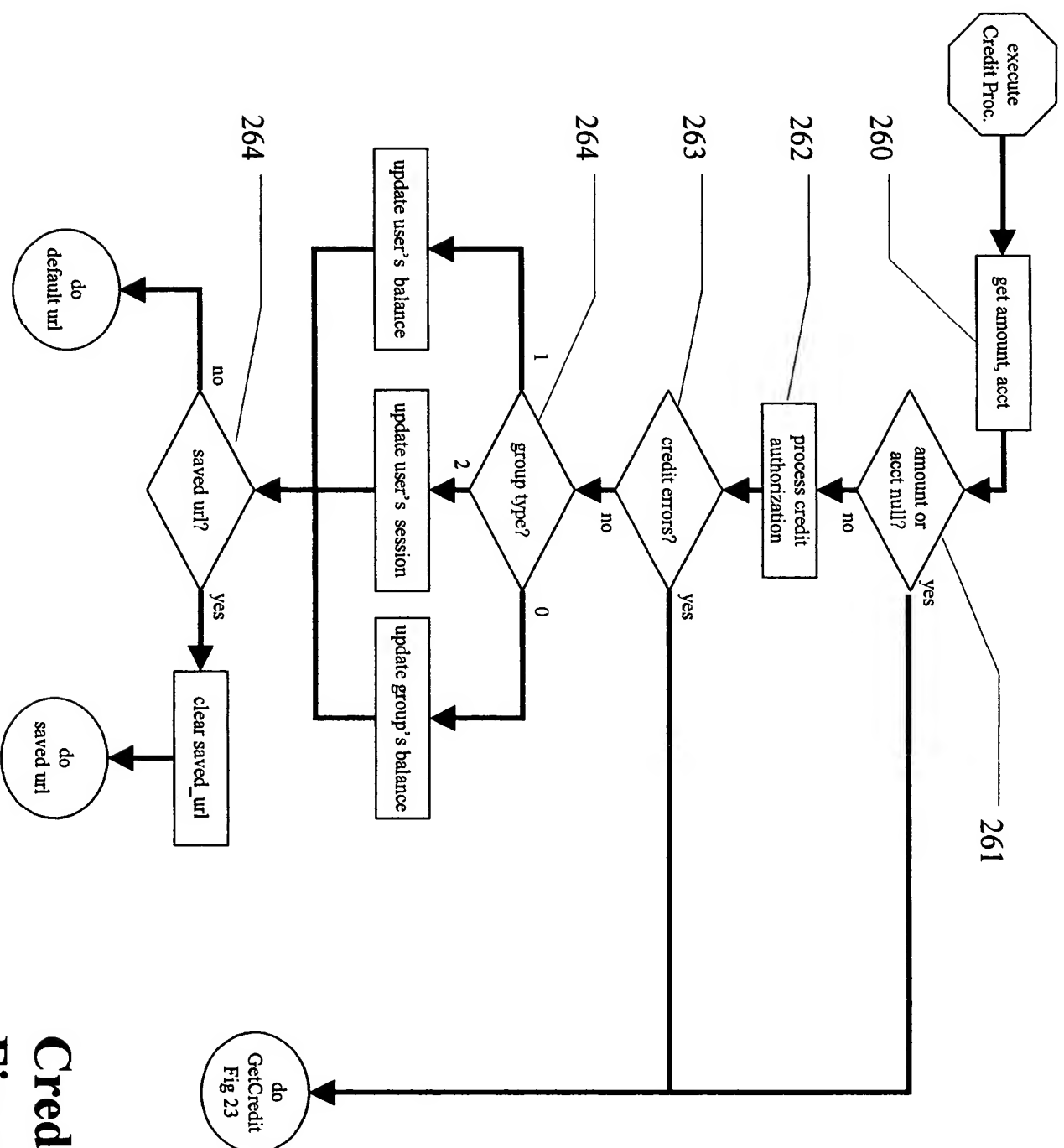
Deny Access
Figure 21



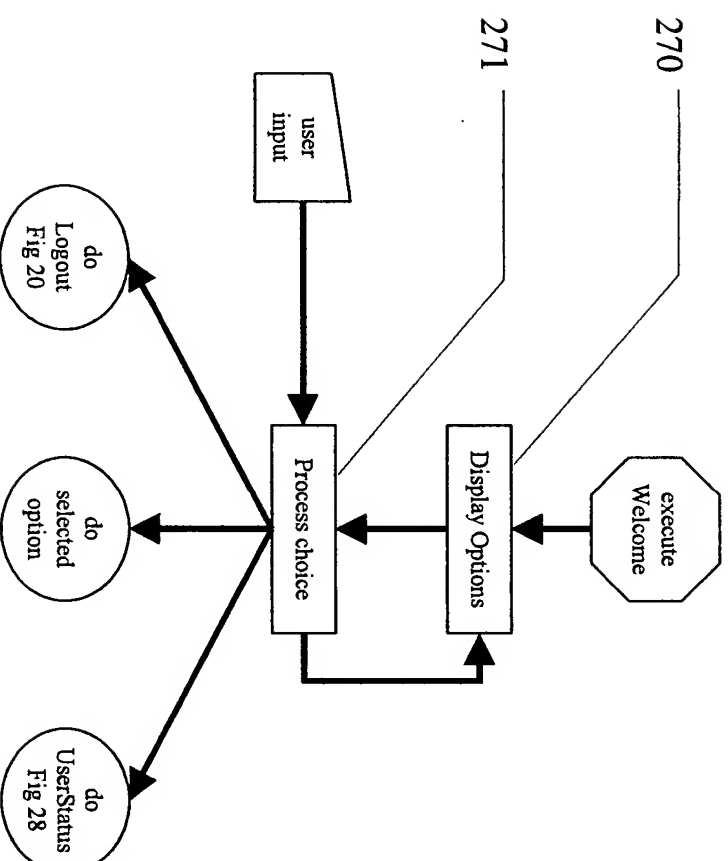
Disabled
Figure 22



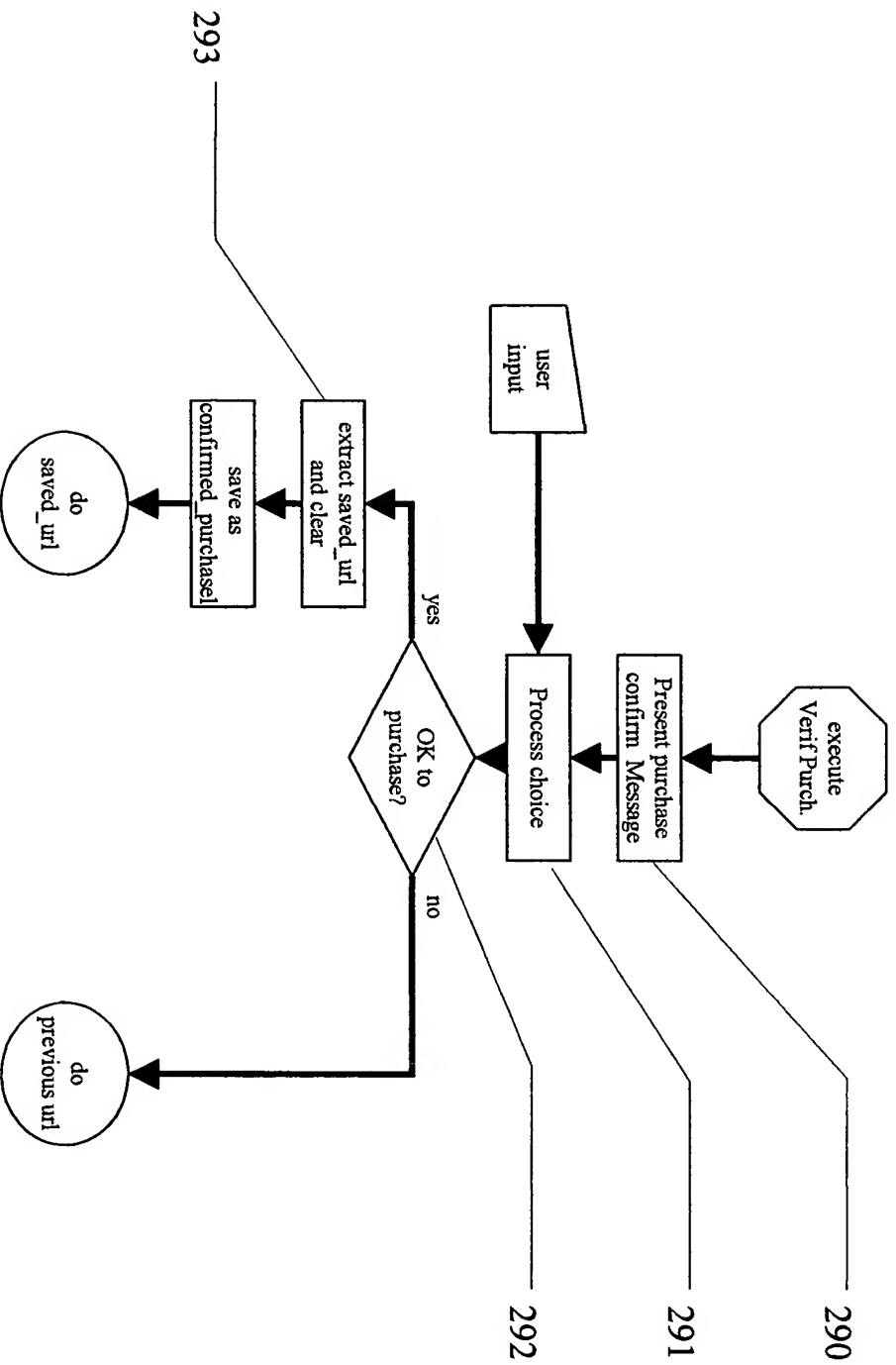
GetCredit
Figure 23



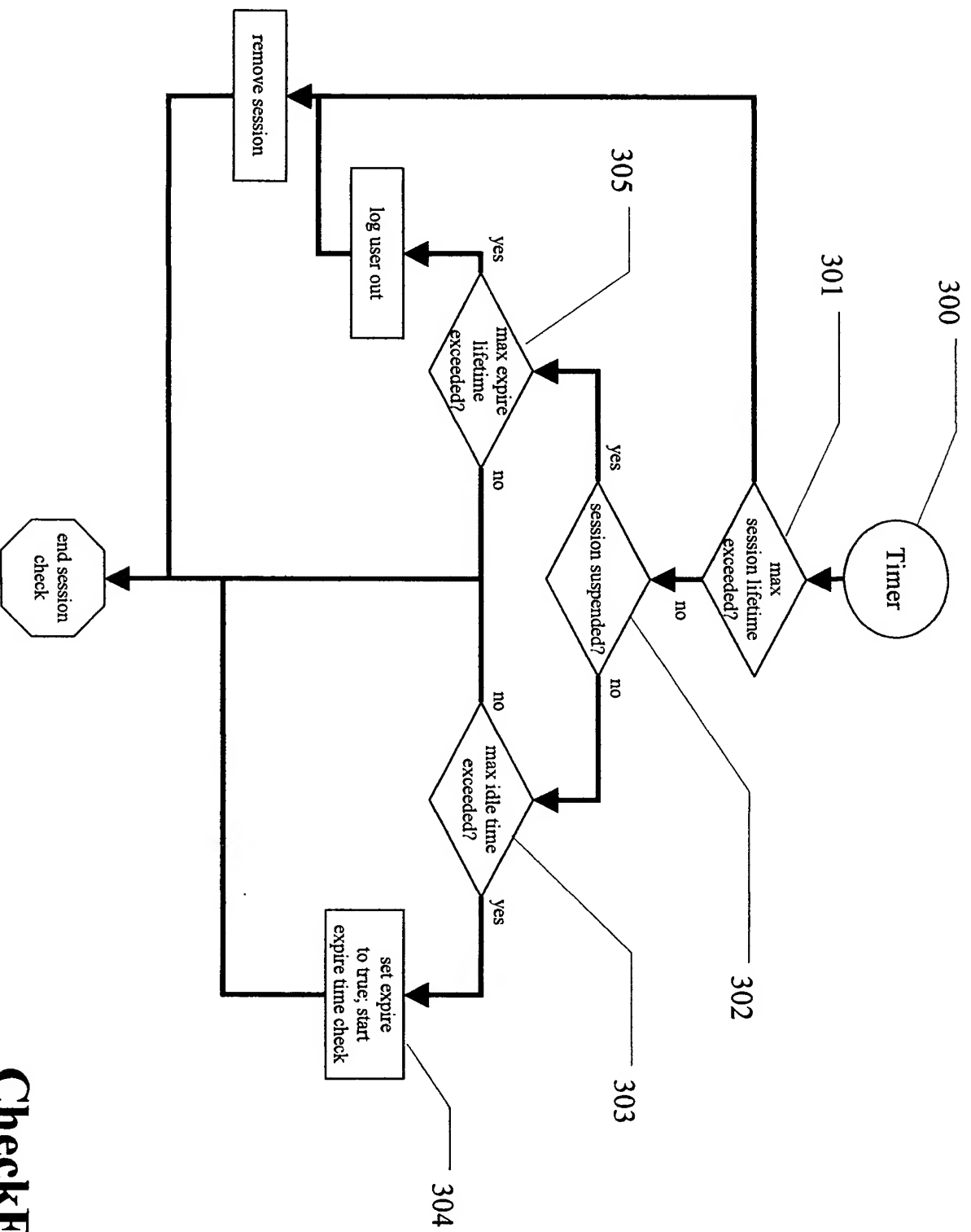
CreditProc
Figure 24



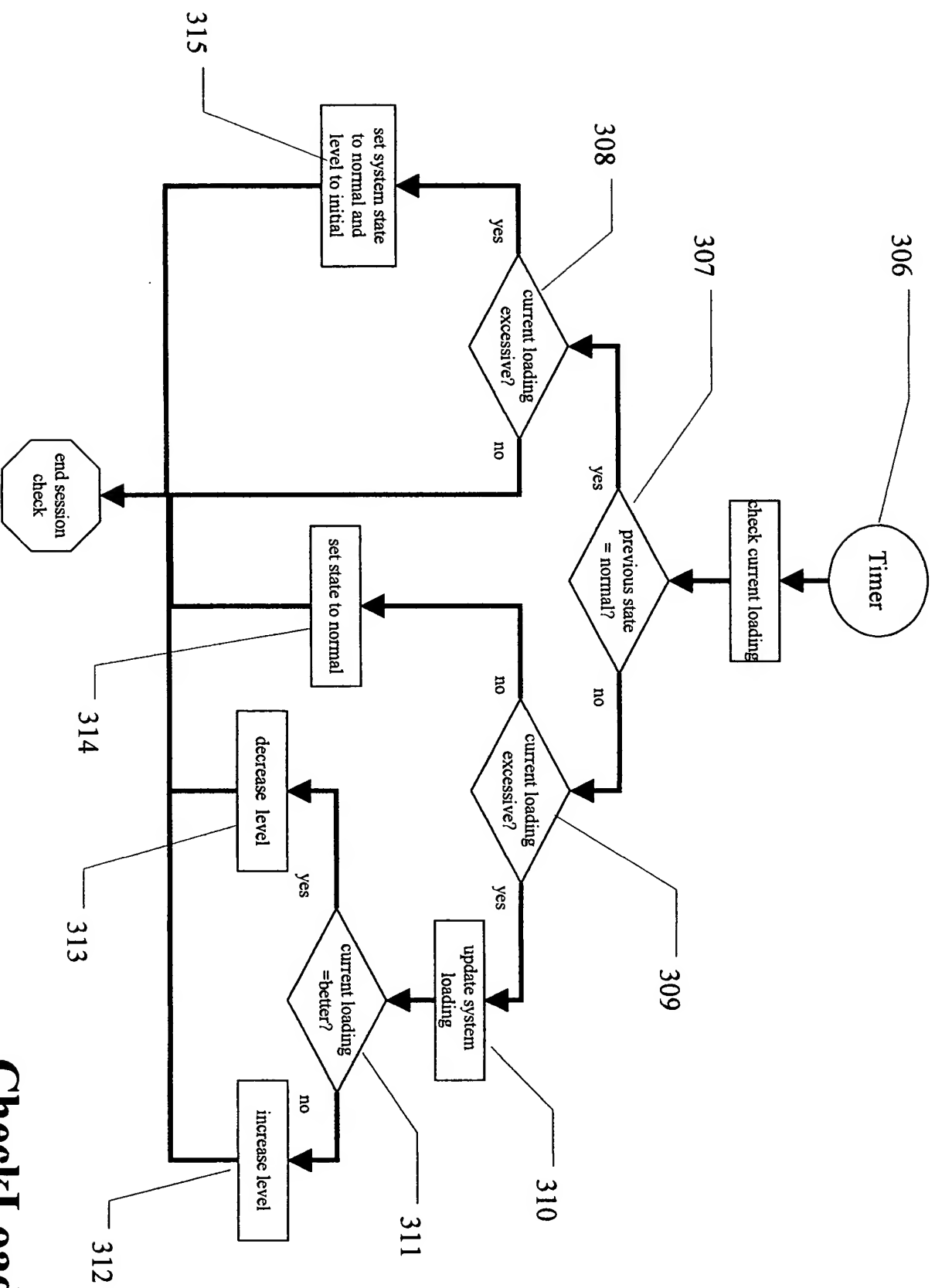
Welcome
Figure 25



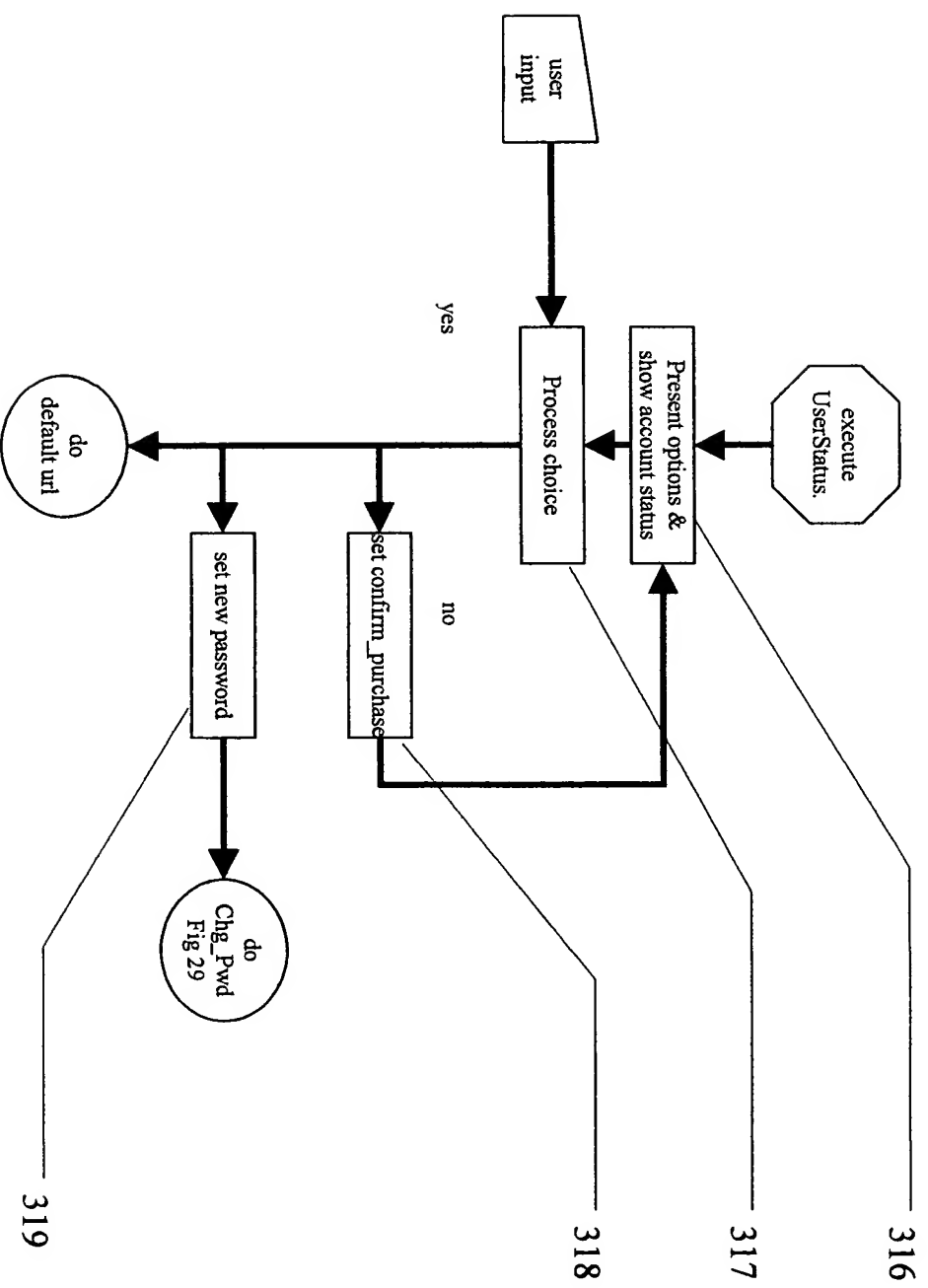
VerifyPurchase
Figure 26



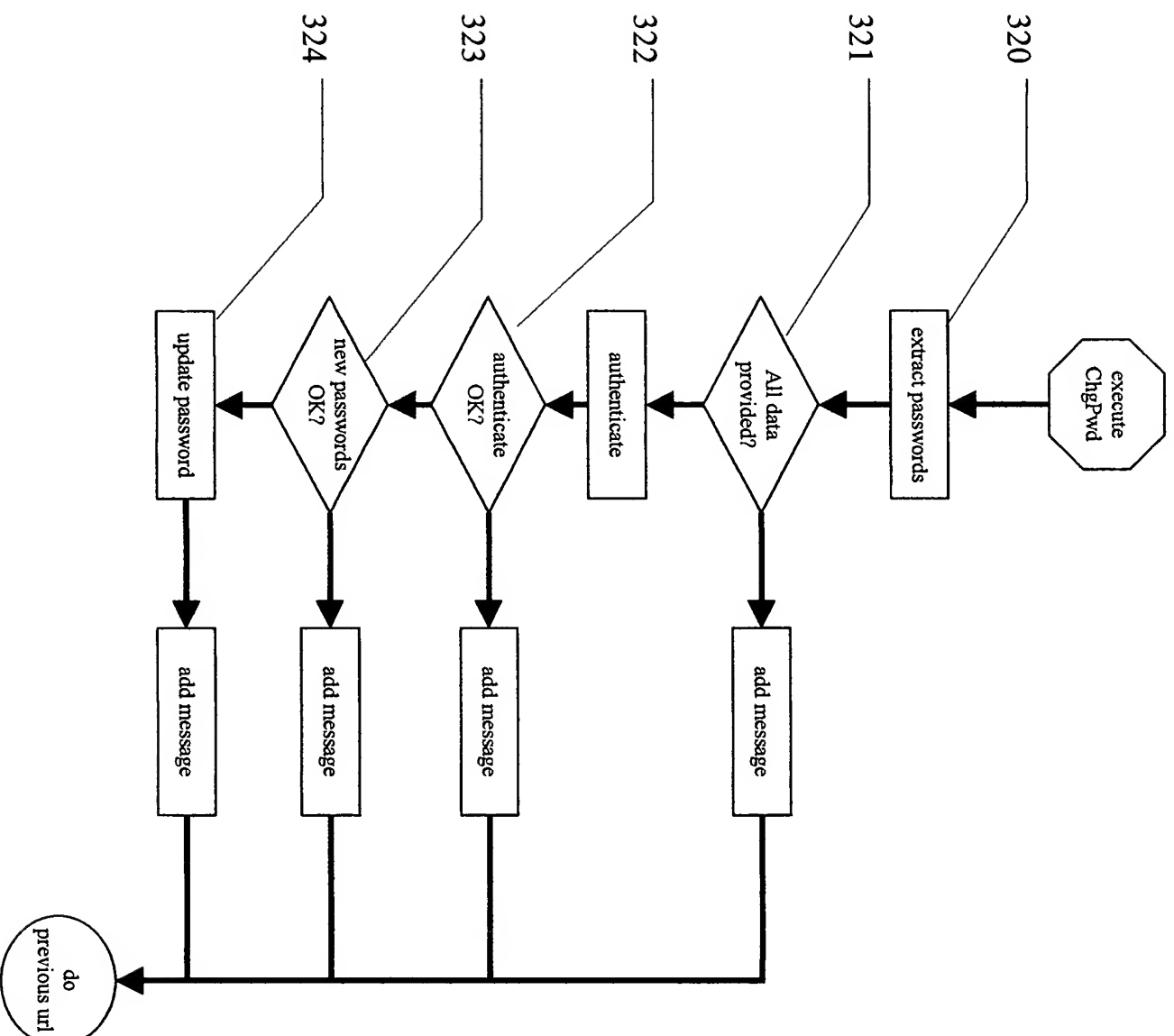
CheckExpire
Figure 27a



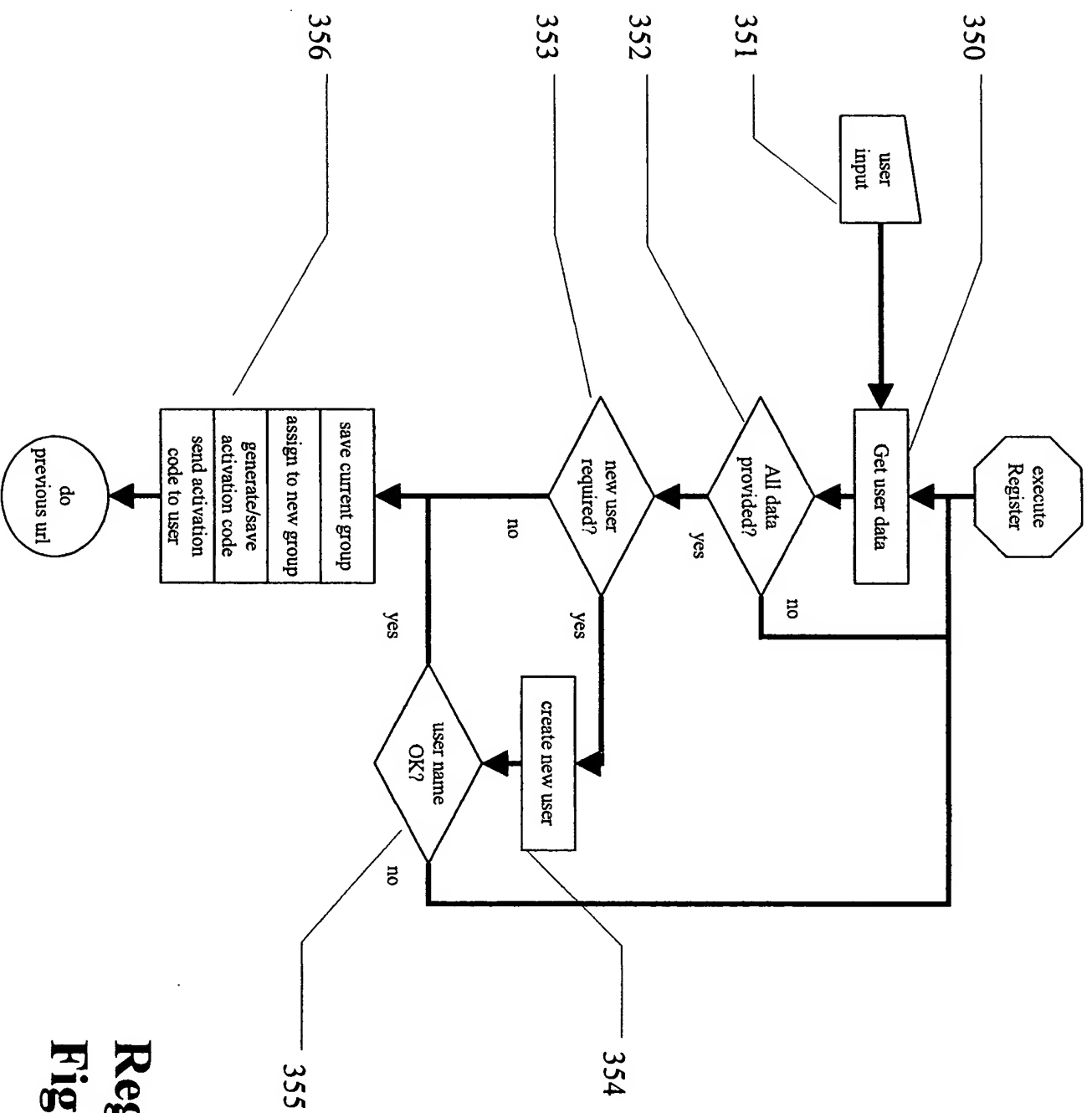
CheckLoad
Figure 27b



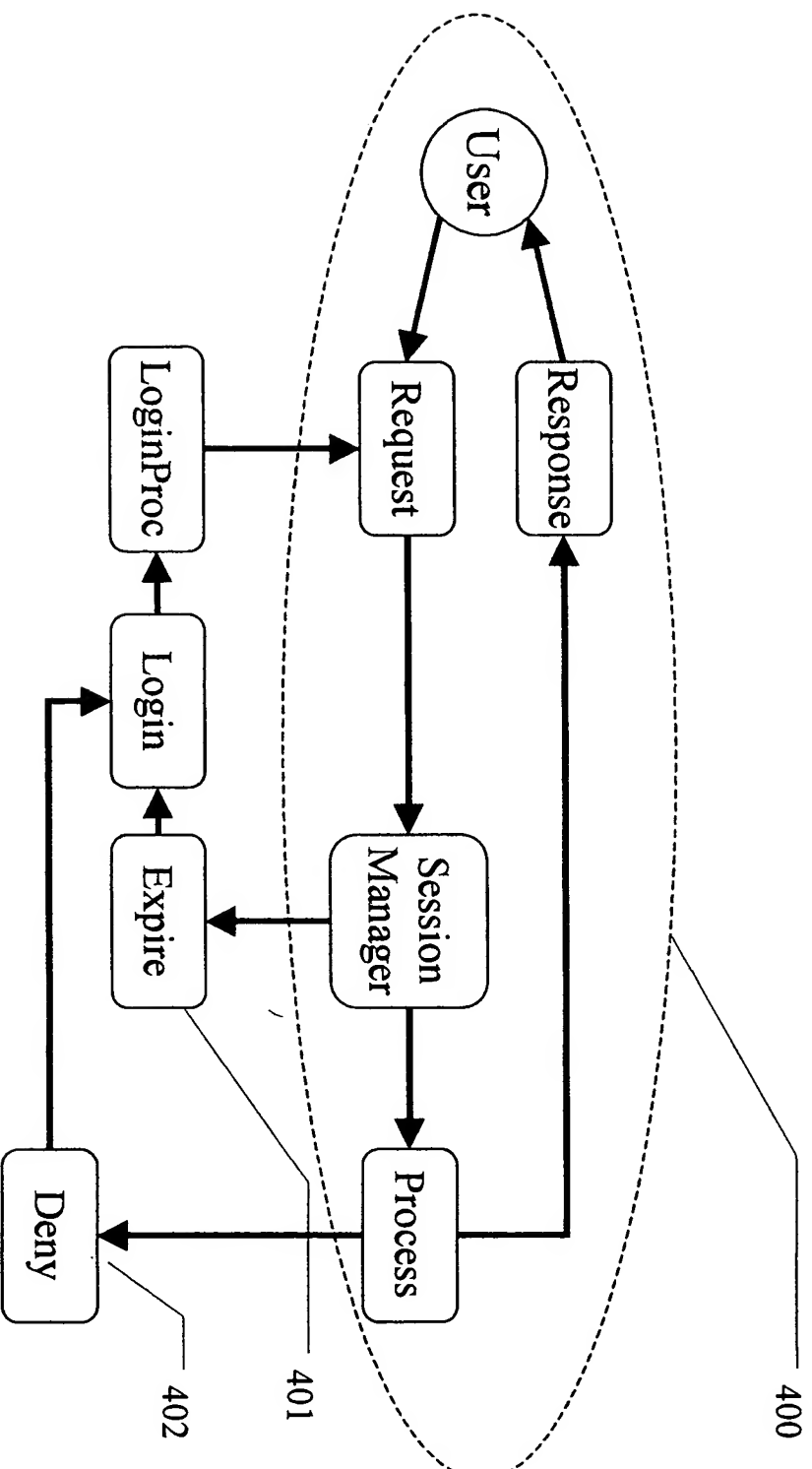
UserStatus
Figure 28



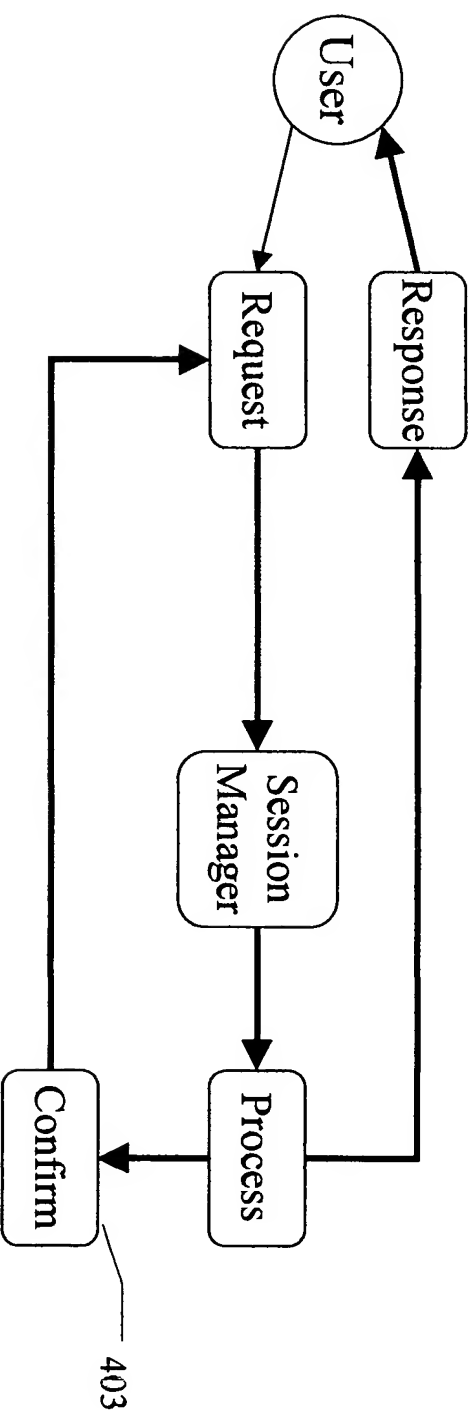
ChgPwd
Figure 29a



Register
Figure 29b



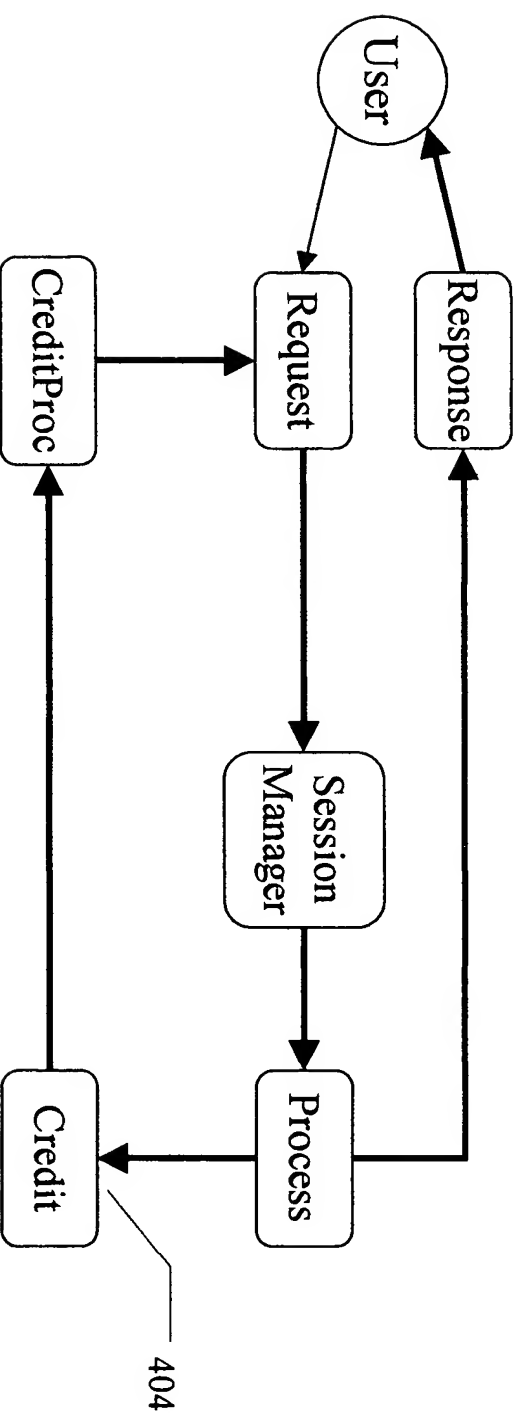
Deny/Expire
Scenario
Figure 30



Scenario:

- confirmation active
- request not yet confirmed
- request saved
- confirmation requested

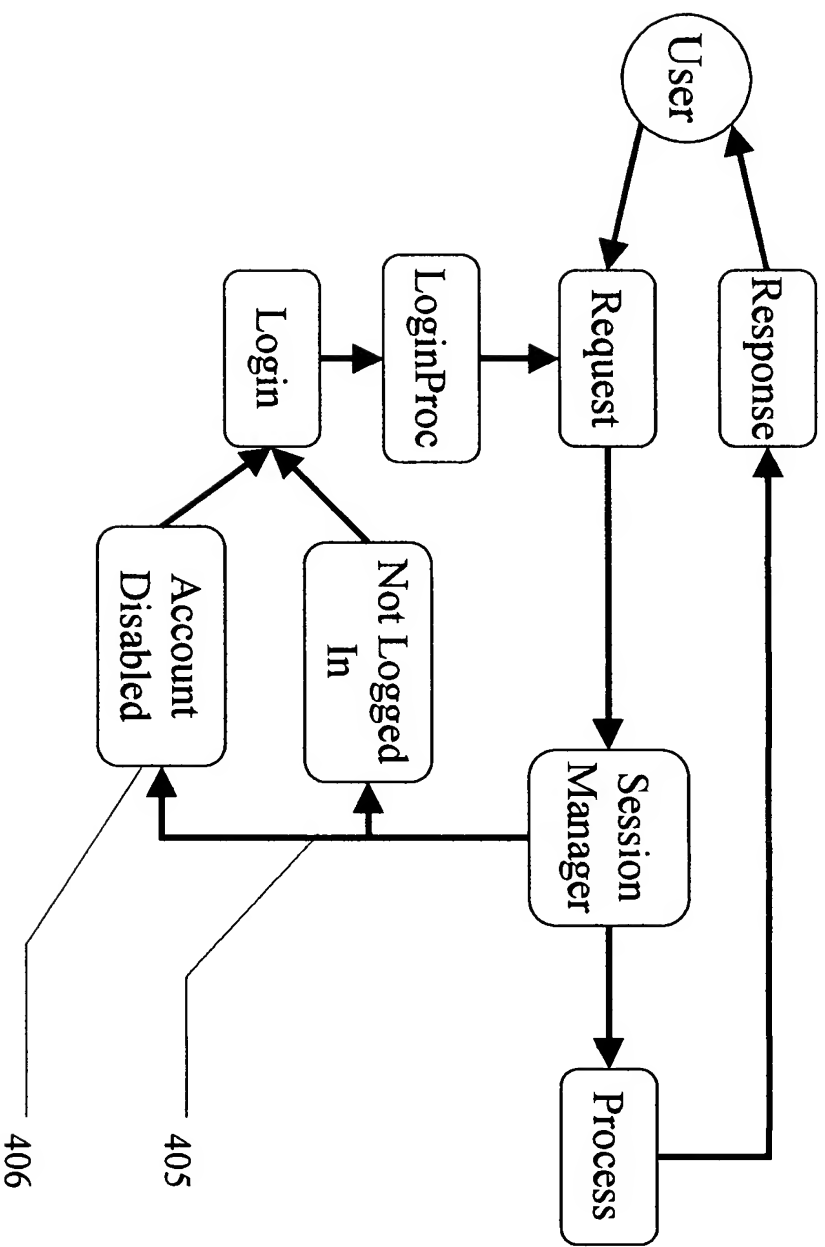
**Confirm
Scenario
Figure 31**



Scenario:

- access granted
- charge > \$0
- insufficient balance/credit
- request saved
- additional funds requested

**Get Credit
Scenario
Figure 32**



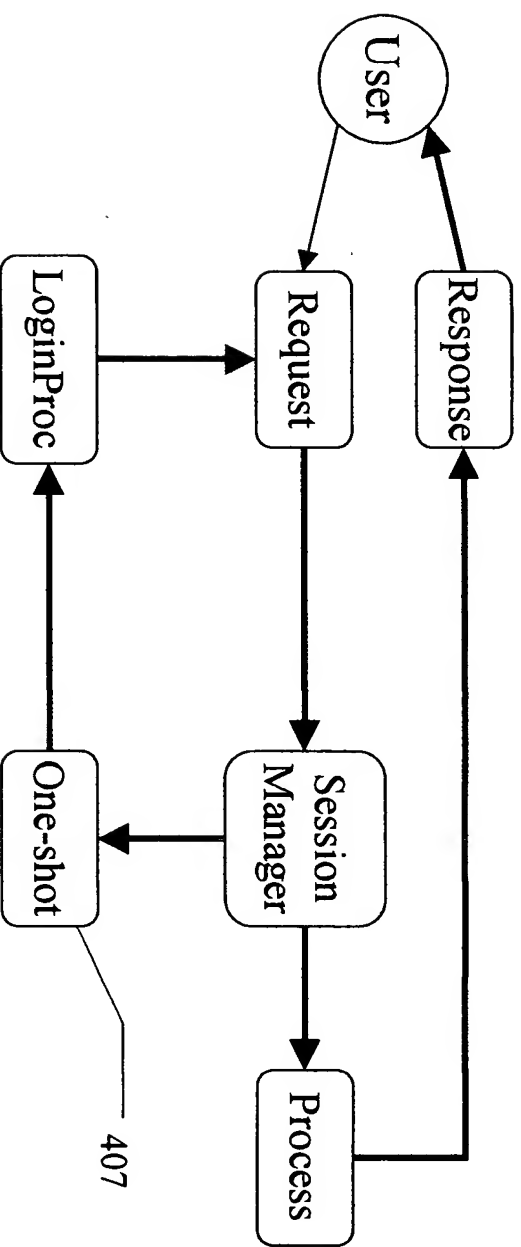
Scenario 1:

- automatic anonymous identity disabled
- initial user request
- login option presented

Scenario 2:

- account disabled
- re-authentication option presented

Disabled Scenario Figure 33

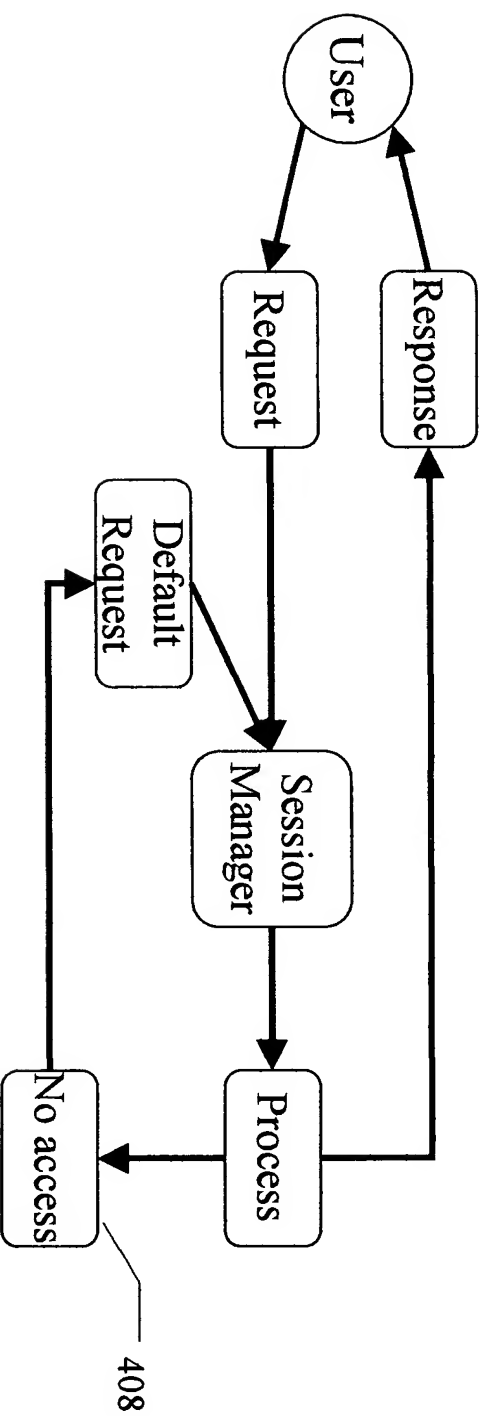


407

Scenario:

- request includes credentials
- request extracted, saved
- credentials processed for login

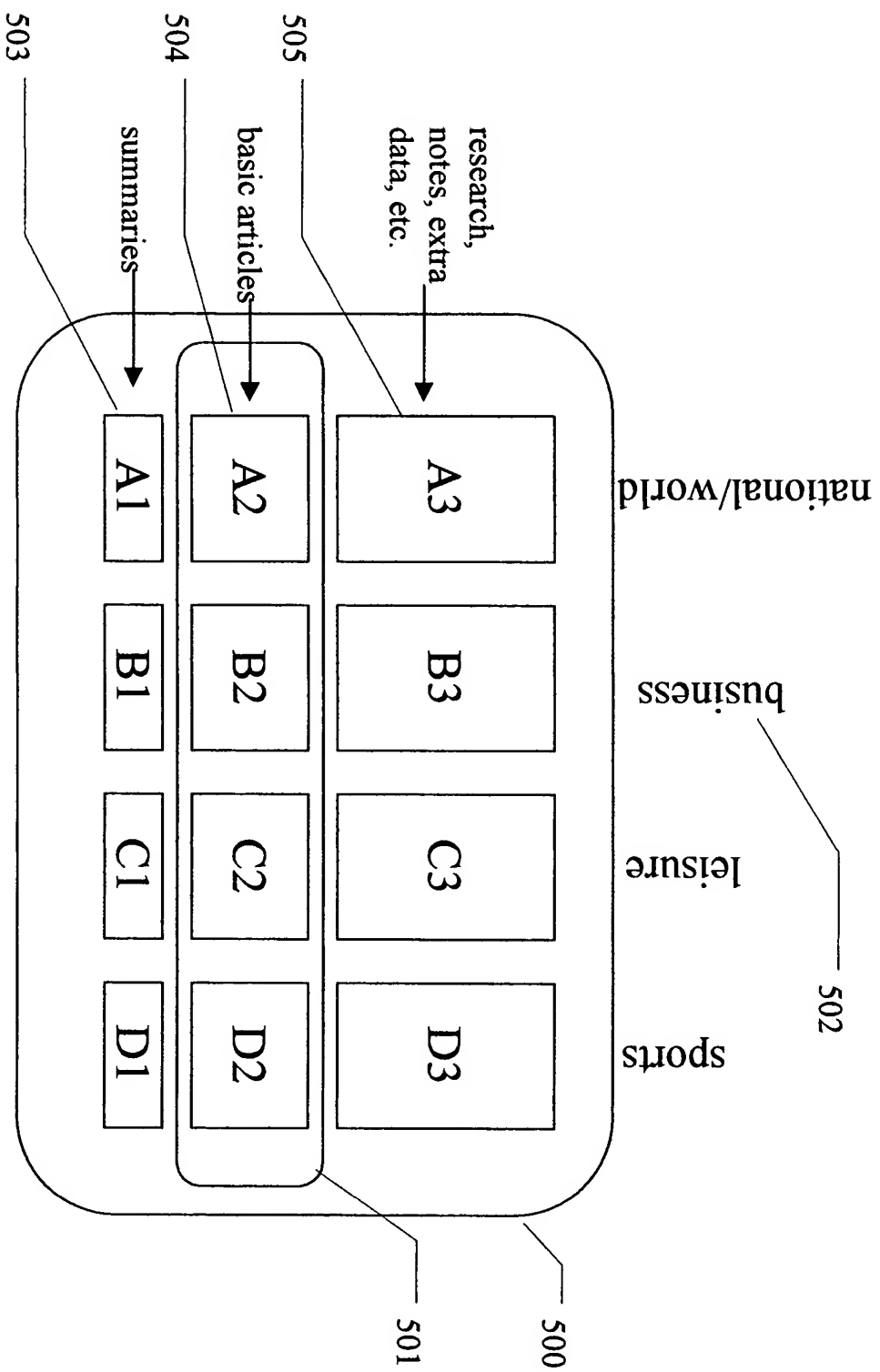
**'One-Shot'
Scenario
Figure 34**



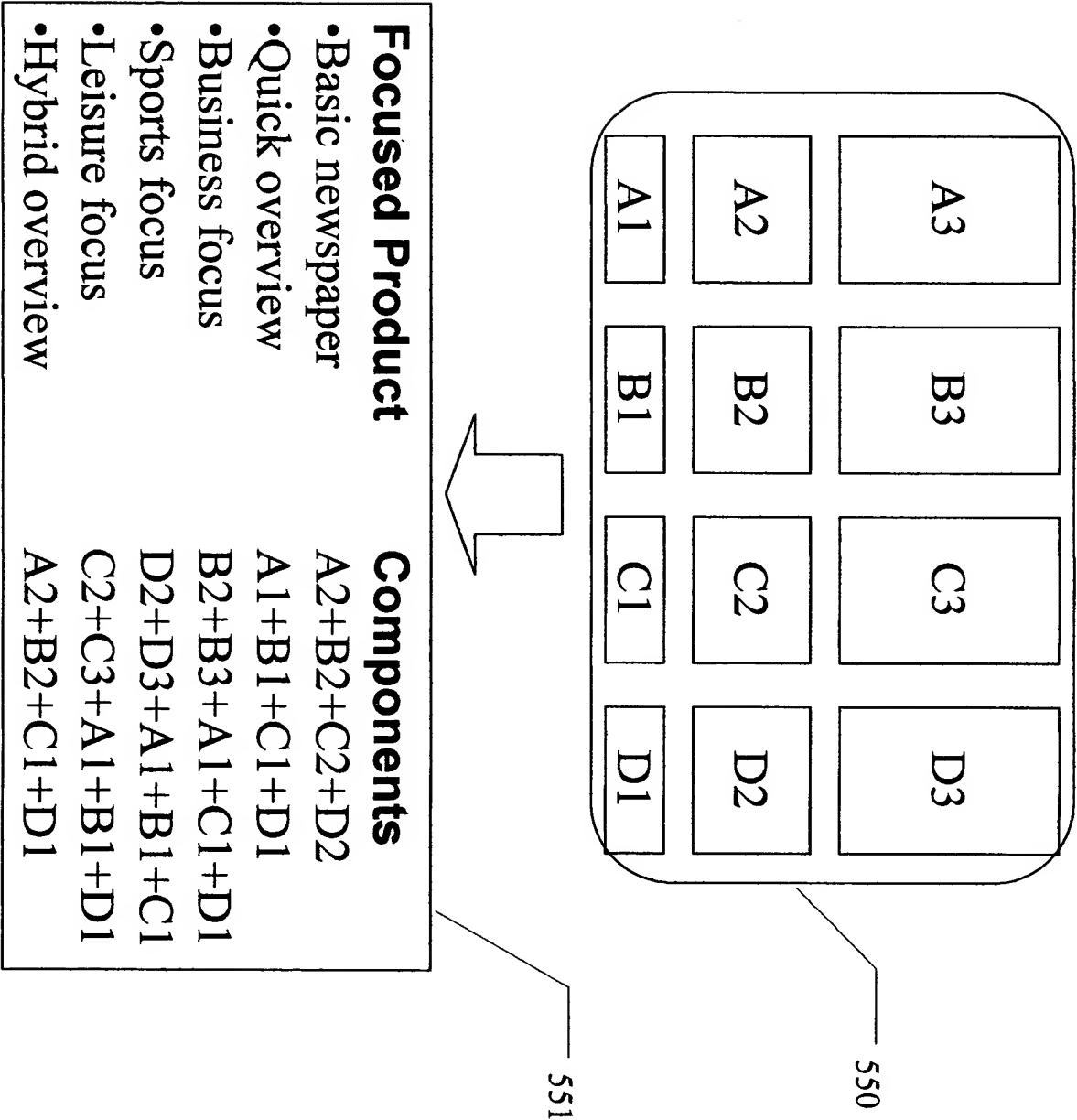
Scenario:

- access not defined, and secure mode active
- resubmit as default request

**No Access
Scenario
Figure 35**



Newspaper Content Example
Figure 36



Focused Product Example
Figure 37



Frequency	Class	Fixed	Incr.
30/month	Heavy	100%	0%
20/month	Medium	50%	50%
10/month	Light	25%	75%
5/month	Occasional	0%	100%

601

Example Market Segments
Figure 38